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THE UNIVERSITY OF ALBERTA

WOMEN AND WORK IN CANADA, 1961 AND 1971

by

ANNE MARIE DECORE (C)

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF PHILOSOPHY

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EDMONTON, ALBERTA

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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Women and Work in Canada, 1961 and 1971," submitted by Anne Marie Decore in partial fulfilment of the requirements for the degree of Doctor of Philosophy in the Department of Sociology.

Supervisor

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ABSTRACT

The three main concerns of this thesis were the extent to which the female labour force grew between 1961 and 1971 in Canada; the extent to which relationships between labour force participation and such factors as age, education, residence, region, marital status, child status and others observed in earlier studies in Canada and elsewhere are evident in Canada in 1971; and the extent to which the two-phase pattern of labour force participation is observable in Canada in 1971. Using census data comparisons were made between 1961 and 1971 for Canada and between Canada in 1971 and the United States in 1970. Cross-sectional comparisons and regression analysis were used in the analysis.

Female labour force participation increased more between 1961 and 1971 than in any preceding decade. Labour force participation in Canada increased most among those 35-54 years of age; among rural farm women; among those in Ontario, the Prairies and British Columbia; among the more educated; and among married women. Except for the residence variable all relationships between the labour force participation and the independent variables are in the direction one would expect on the basis of previous research.

A very limited multivariate analysis indicates that for the independent variables considered, child status is followed by age, education and region in terms of relative effect on the labour force participation of married females, husbands present. Although region of residence does not exert a strong direct effect on the labour force

participation of women, both the cross-sectional analysis and the regression analysis illuminate some of the indirect effects of region through education and child status.

The effects of marriage and childbearing patterns in Canada and its regions coupled with regional variations in educational levels are such as to limit the appearance of the two-phase pattern of life-cycle participation. Only when changes occur in these factors and in related attitudinal factors, will the second peak in participation emerge more clearly.

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Two people merit special acknowledgment for their help and encouragement. My husband, Laurence Decore, as well as providing encouragement, took over most childcare and domestic duties for many months so that I could be free to complete this project. My supervisor, Dr. Karol Krotki, in addition to the usual advice and assistance, maintained his support and encouragement over what turned out to be a rather long time. I am particularly grateful to these two people.

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

The economic role of pioneer women in a new country like Canada was of considerably greater import than has generally been acknowledged. Such labour as they provided was, however, within the confines of the household, the family farm, or the family business.

While the census does not consider the woman who confines her activities to household chores as gainfully occupied, women who work on the family farm or the family business are now counted among unpaid family workers. That this has not always been the case is reflected in figures pertaining to the agricultural sector early in this century. In 1911, 58.2% of the population of Canada was rural and 39.0% of all adult males were engaged in agricultural occupations but only 4.4% of all adult females were so occupied.[1] Even one with the briefest acquaintance with rural life knows that the farm woman who did not work in the fields, care for livestock, and participate in the maintenance activities of a farm in addition to doing her household chores and bearing large numbers of children, was the exception not the rule. This was in all likelihood also the case of many women outside the agricultural sector. Early figures on female economic activity, then, probably underestimate their actual activity considerably.

To speak of changes in the economic activity of women in this country is to talk more about changes in the locus of their activity rather than increases in activity. This observation would hold to

some extent in the United States where the pattern of economic development was similar to that of Canada. Even in Europe where the transition from agricultural to industrial production took place earlier, the economic activity of women is probably underestimated. An idealized image exists of the woman who, as a consequence of industrialization, urbanization, increasing productivity combined with laws restricting the employment of women, became a homebound creature of leisure who tatted lace hankies. Without a doubt, the Victorian lady existed but she was of the affluent classes and in the minority.

All this is not to deny that changes have taken place in female economic activity--profound changes have occurred. It is important, however, to keep these changes in the proper perspective. The process of industrialization and related changes in health care, education, transportation, patterns of residence, and the family itself have served to lighten the load of domestic duties of women. As economic production generally moved outside the family unit so too did the production of food and clothing. At the same time fertility and mortality decreased, the extended family was supplanted by the nuclear family, education became universal, while at the same time the tertiary sector of developed economies expanded. Women, then, were relieved of a good many household activities and drawn into the service and clerical sector.

What is the nature of these profound changes? Not only has the proportion of women employed outside the home increased remarkably, but so has the proportion of women in the labour force as compared to men. Table 1:1 demonstrates these changes in Canada between 1901 and 1961. Over the sixty year period female labour force participation

TABLE 1:1

FEMALES IN THE CANADIAN LABOUR FORCE 1901-1961-
PARTICIPATION RATES AND PERCENTAGE OF THE
TOTAL LABOUR FORCE[a]

Year	Female Participation Rate	Per Cent Labour Force Female
1901	12.0	13.3
1911	14.3	13.4
1921	17.2	15.5
1931	19.1	17.0
1941	20.2	18.5
1951	23.6	22.0
1961	29.5	27.3
1971	39.9	34.6

[a]Source: Canada, Department of Labour, Women's Bureau, Women at Work in Canada, (Ottawa: Dominion Bureau of Statistics, 1965), p. 10; Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-6), pp. 11-3 to 11-8.

Note: Female labour force participation refers to the proportion of females 15 years of age or older who were employed or seeking employment in the week preceding the Census.

rates more than doubled from 12.0 to 29.5. At the same time Canadian women increased their share of the labour force from 13.3% to 27.3%, again more than double. As Table 1:1 shows, the most recent decade reveals an acceleration of the trend towards increased female participation. One purpose of this study will be to examine the sources of growth of the female labour force in Canada between 1961 and 1971.

The increasing number of females employed outside the home has given rise to a great deal of interest in and a growing literature on the labour force participation of females. A good deal of this literature has focused on the correlates of this participation. A second interest of this study is an examination of the extent to which relationships between participation and such factors as age, education, marital status, child status, and others observed for earlier periods and in other industrialized societies are evident in Canada in the 1970's.

While female labour force participation in Canada increased at all ages during this century, until 1961 participation was highest between the ages of 20 and 24 and declined gradually with increasing age. In 1961, however, a second smaller rise became evident between the ages of 35 and 54. A third focus of this study is an examination of the extent to which this two phase pattern of labour force participation is observable in 1971.

THEORETICAL BACKGROUND

Studies of labour force participation rest on theoretical premises about labour supply developed by Marshall, Robbins, Douglas and others.[2] According to these early formulations of labour supply, the

individual worker may expend his time in two ways: work or leisure. The primary determinant of whether available time is expended on either work or leisure is income or more precisely wages. As wage rates increase two outcomes are possible. On the one hand, a higher wage rate makes time spent away from work (i.e., on leisure activities) more expensive and provides impetus to increase the number of hours worked. This is known as the positive substitution effect. On the other hand, a higher wage rate increases the income available for disposal on a variety of goods and services, most particularly on leisure. The effect of this is to decrease the hours of work. This is known as the negative income effect.

Which effect predominates? The answer to this question rests on the theory of the "backward bending" supply curve of labour.[3] In other words, the supply of labour (e.g., hours worked) increases as wages increase up to a point but then reverses and decreases as wages rise. The turning point is determined by the individuals needs and tastes or wants. This backward bending supply curve is thought by some to hold not only for the individual but also for the aggregate or population over the short term. Skoulas raises a number of reasons why this effect may be attenuated in the aggregate case though the body of empirical data supports the existence of the backward bending supply curve.[4]

Historical evidence would appear to indicate that over the long term the effect of rising wages has been to decrease the average hours of work in a population as well as to decrease the proportion of the population that are economically active. The negative income effect, then tends to be stronger than the positive substitution effect.

While economic activity has declined for both the young and the old and hours of work have declined for prime age males, such is not the case for prime age females. The increase in labour force participation by women is observable in most developed nations in this century.[5]

One reason for the appearance of this apparent anomaly is that the individual may, in fact, have more than two ways to expend time. In addition to remunerative work and leisure, an individual may spend time on educational pursuits, or on various forms of unpaid work such as the production of goods and services for consumption in the home. As Mincer observes, education occupies increasing amounts of the time of the young and to a lesser extent of adults.[6] Likewise homework is engaged in by all but especially by women. For women, then, increased activity outside the home represents not a reapportionment of time between work and leisure but a reapportionment of time between paid work, leisure, and homework. To the extent that a woman is freed of domestic duties by labour saving devices, convenience foods, cheap factory produced goods such as clothing, and smaller families to mention a few factors, she has increased time to spend on both leisure and on economic activity outside the home.

Mincer also observes that the inclusion of homework as an alternative activity to be considered in the distribution of an individual's time implies that the economic activity of an individual (male or female) must be viewed in the family context.[7] Both the number of hours worked and presence in the labour force must be looked at in this way. For example, an increase in wage rates may lead to increased time expended on paid work if older children are continuing their education (positive substitution effect) or it may lead to

decreased time expended on paid work if children are grown (negative income effect). Likewise in the absence of rising wage rates for the male-head, these changing consumption patterns in the family may lead to the entry of the mother into the labour force in the first instance or her withdrawal in the second instance.

In addition to the effects of wage rates, the distribution of time, and family needs and wants; conditions in the labour market affect the supply of labour. Whether wages are rising or falling is highly correlated with loose or tight labour market situations. When the market is loose, that is when unemployment of men is high, two responses are possible. The additional worker hypothesis posits that such conditions lead to the entry of many wives and children into the labour market. These secondary workers become economically active in order to maintain the family income at a level to which they are accustomed. A contrary hypothesis--the discouraged worker hypothesis--posits that under loose market conditions unemployment of all groups is high, hence secondary family workers have great difficulty in getting jobs and are discouraged from entering the labour market.[8] The current view is that these effects are not an either/or proposition, rather both operate but the empirical literature gives no clear answer about which is dominant and under what conditions.

It is against this theoretical background that economists, demographers and other social scientists have examined the relationship of age, marital status, residence, education, region, number and age of children, family income, income of wife, unemployment of husband, availability of mother substitutes and other factors to labour force participation of women in a variety of countries. Other re-

searchers, particularly sociologists, have examined the correlates of female labour force participation from a slightly different but complementary perspective. According to this view the propensity of females to enter the labour force is affected not only by structural variables but also by socio-cultural variables. The transition from Gemeinschaft to Gesellschaft societies has involved industrialization, urbanization, increasing productivity, increasingly complex technology, increasingly differentiated division of labour, increasing levels of skill and education all of which are intimately tied together. This transition has also involved the shift from the extended to the nuclear family; the shift from more authoritarian to more egalitarian role definitions for males and females, for young and old; as well as an increased emphasis on individual achievement, individual satisfaction and satisfying affective relationships. Differences in female role definitions, in commitment to work, in socialization experiences in notions of self-fulfillment, in orientations towards the bearing and rearing of children, for example are related to labour force participation directly and indirectly through regional, residence, ethnic and religious variables.

In reviewing the literature, the following chapter gives primary emphasis to research focused on labour force participation and related structural variables since they are the subject of this study, however, studies including or focusing on cultural variables will also be examined. This review will deal first with the literature pertaining to countries other than Canada. Except for several very significant works which will be described individually, findings will be summarized under separate headings relating to correlates of

participation. Finally the Canadian literature will be reviewed.

FOOTNOTES

[1]D. Kubat and D. Thornton, A Statistical Profile of Canadian Society (Toronto: McGraw-Hill Ryerson Limited, 1974), p. 14, p. 154.

[2]A. Marshall, Principles of Economics (8th edition, London: Macmillan and Co., Limited, 1920; reprint ed., 1961), pp. 660-667; L. Robbins, "On the Elasticity of Demand for Income in Terms of Effort," Economica, X (June, 1930) pp. 123-129; P.H. Douglas, The Theory of Wages (Reprints of Economic Classics, New York: Augustus M. Kelley, Bookseller, 1964), pp. 269-314.

[3]Robbins, op. cit., pp. 126-127.

[4]N. Skoulas, Determinants of the Participation Rate of Married Women in the Canadian Labour Force: An Econometric Analysis (Statistics Canada, Ottawa: Information Canada, 1974), p. 15-16.

[5]C.D. Long, The Labour Force Under Changing Income and Employment (Princeton: Princeton University Press, 1958), pp. 97-99; and A. Myrdal and V. Klein, Women's Two Roles (London: Routledge and Kegan Paul Ltd., 1956), pp. 44-73).

[6]J. Mincer,"Labour Force Participation of Married Women: A Study of Labour Supply," in Aspects of Labour Economics (Princeton: Princeton University Press, 1962), p. 65.

[7]Ibid., pp. 65-66.

[8]W.S. Woytinsky, "Additional Workers and the Volume of Unemployment in the Depression," Social Science Research Council (Pamphlet Series 1, Washington: Government Printing Office, 1940) cited in D.D. Humphrey, "Alleged Additional Workers in the Measurement of Unemployment," Journal of Political Economy, XLVIII (June, 1940), pp. 412-419.

CHAPTER II

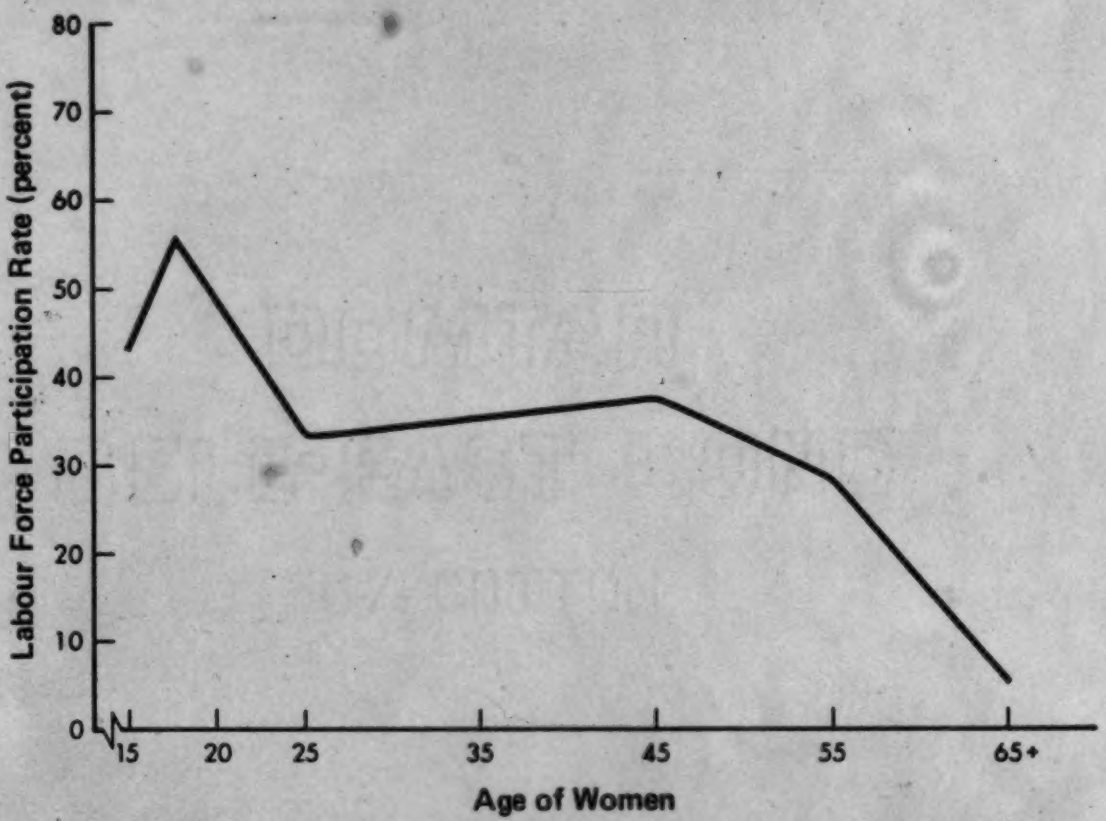
REVIEW OF THE LITERATURE

Publications concerning women in employment outside the home date back to the middle of the nineteenth century. The central concerns of this literature are hours of work, conditions of employment, and wages. The recency of concern with the extent of female employment and the correlates of employment is evidenced by the publication date of one of the earliest articles in this area--Durand's "Married Women in the Labor Force"--published in 1946.[1]

AGE

Most publications note the relationship between age and labour force participation. Both Durand and Long note that participation declines with age.[2] Although the beginnings of the two phase pattern of life cycle participation is evident in 1950 in the United States and about the same time in Britain the phenomenon was largely unnoticed.[3]

Chart 2:1 illustrates the two phase pattern of participation graphically. It can be seen that there is an early peak in female participation in the early twenties a subsequent decline in the late twenties and a gradual rise thereafter reaching a second peak in the late forties and early fifties followed by a final decline. The first peak is a reflection of the entry of females into the labour force after completion of school. Analysis of data pertaining to married women has shown that the trough in the graph comes about as a result



[a]Source: Ostry, S. The Female Worker in Canada. (Ottawa: Queen's Printer, 1968) p. 11.

CHART 2:1
FEMALE LABOUR FORCE PARTICIPATION PROFILE
CANADA 1961[a]

of the withdrawal of childbearing women. Further the second rise is the product of re-entry of married women (particularly those with no pre-school children) into the labour force.[4] The age participation profile is then a reflection of occurrences in the life-cycle of women. This being the case, age has been a variable of considerable interest in most studies of female labour force participation.

RESIDENCE

The influence of rural-urban residence and regional factors on female labour force participation is dealt with in much of the literature. Long in The Labour Force under Changing Income and Employment observes that participation is highest in the largest urban centers and lowest in rural areas and concludes that continuing urbanization will favour increased female participation.[5] Kelsall and Mitchell in a British study point to regional differences in participation and relate that to differing industrial and occupational patterns within regions.[6] In the United States regional differences in participation have been examined in reference to differences in racial composition, and occupational composition.[7] Regions in which agricultural and extractive occupations are dominant have low female participation, regions in which secondary and tertiary occupations are dominant have higher female participation. In the United States areas of high non-white concentration have higher female employment levels.

EDUCATION

Education has very important effects on female economic activity. Of this relationship Long says:

> According to the 1940 census, married women living

> with their husbands were distinctly more apt to work if they were college graduates; but no similar association between education and employment were observable among women below the college level, even when they were analysed by age, and possession of young children. It is, of course, possible that well educated women had less need to earn money because their husbands were more prosperous on the average, and that the two counter-tendencies... cancelled each other out....
>
> However, for all women, married and unmarried combined, the association between education and participation in the labor force was nothing short of powerful....
>
> (A) ...characteristic of the relationship with education is that for any given age, residence, or color the participation of females increases slowly with education up to high school, then rapidly up to college or beyond.[8]

The very strong relationship between female employment and education has been confirmed repeatedly in subsequent studies.[9] Miller and Suter found education to also be highly correlated with a female's likelihood to work throughout her lifetime--more education, more continuous employment.[10] Again continuing increases in education over time can be expected to push employment levels higher. Klein comments on this relationship:

> The reasons for this tendency are easy to see, the more highly trained a woman is, the more rewarding her employment will be both intellectually and financially. Education will not only have qualified her to hold a more interesting and responsible job, but it will, more often than not, have promoted the habit of seeking satisfaction in mentally stimulating work.
>
> Moreover, scientific, technological and economic developments of recent years have been such as to multiply the number and variety of occupations requiring a high degree of education and technical skill. The opportunities for employment are therefore best for people with the highest qualifications.[11]

Education also affects labour force participation indirectly

through fertility behaviour. A subsequent section of this review notes the strong negative relationship, particularly in developed nations, between fertility and labour force participation. Of the relationship between education and fertility, Whelpton, Campbell, and Patterson observe that more educated women (and more educated couples) tend to marry later and to postpone childbearing longer after marriage than less educated women.[12] A 1971 study by Michael also found that more educated couples begin childbearing at a later age.[13]

Spacing of children is also affected by education with more educated couples and more educated women spacing their children closer together as well as more evenly. Michael has found also that more-educated couples "select contraceptive techniques which on the average are more effective in preventing pregnancy."[14]

MARITAL STATUS

Drawing on census and labour force survey data for the period 1940-1960, Nye and Hoffman observe that single women exhibit the highest rates of participation, followed closely by widowed and divorced women, and more distantly by married women.[15] This is consistent with Long's findings for five countries (Britain, Canada, Germany and New Zealand in addition to the U.S.A.) over longer periods of up to 50 years.

> Single and married females aged 16 and older increased their participation in the four English-speaking countries....Widowed and divorced women, however, did so only in the United States; in Britain and New Zealand their participation decreased by amounts almost as large, in some cases, as the increase for single women and wives. In Germany wives showed sizable rises in participation up to 1939, while single, widowed, and divorced women--lumped together in the statistics--increased in the labor force, but only in very small

> amounts. These three latter groups and wives lowered their participation in Germany between 1939 and 1950--perhaps partly as an effect of the pensions which were referred to previously.[16]

Since, as both of the above studies point out, the increases in participation of married women were considerably greater than for the other marital groups and since married women constitute such a large proportion of the female population the effects of changes in participation of married women have been substantial. Using Nye and Hoffman's data some measure of the magnitude of this change can be calculated. For the U.S. in 1940, 48% of female workers were single while 30% were married. By 1960 only 24% of female workers were single while 54% were married.[17] Both the difference in participation rates by marital status and the disproportionate changes in participation of married women over time are documented in a large number of subsequent studies.[18] Because married women have become such a significant segment of both the female and the total labour force in a large number of western nations, many of the studies discussed later in this chapter concentrate on married women only.

In closing this discussion of the relationships between marital status and employment outside the home, it should be pointed out that the relationships between age, residence and education discussed above operate for women in each marital group as well as for the aggregate.[19]

FERTILITY

There has been over the last twenty-five years or so a good deal of debate, as yet unresolved, over the effects of employment on fertility. Weller summarizes this debate:

The suggestion is sometimes made that a population's fertility rate can be reduced by increasing the rate of female labor force participation....One conclusion that can be drawn from a systematic review of the literature is that the negative relationship between female labor force status and fertility is very strong in economically developed countries, but in less developed countries it tends to be either absent or perceptibly weaker....Moreover, in the less developed countries, the probability of observing a negative association is greater in urban than in rural areas.

Probably most of this latter phenomenon is due to differences in the setting of the woman's work that are associated with residence. Thus, if the wife works at home, she is likely to have fertility that is virtually identical to that of women not in the labor force, and if she works away from home she is likely to have lower fertility. Moreover, female workers in agriculture, home handicrafts, or domestic service (who do not live in) tend to have fertility virtually identical to that of nonworkers, while women in white collar, nonmanual occupations tend to have significantly lower fertility.

As the proportion of women engaged in agriculture, home handicrafts and domestic service tends to decline and the proportion of women gainfully employed outside the home in white collar and nonmanual occupations increase with modernization, one could easily advance the postulate that the greater the level of modernization in a population, the stronger the (negative) association between female labor force status and fertility. Despite this, some still have not hesitated to promote increased female labor force participation as a "structural" agent for reducing fertility in less developed settings.

Fertility as well as labor force participation are multidimensional concepts, and the mix of these dimensions changes concomitantly with the level of modernization. Hence the context in which female labor force participation occurs in a less modernized setting, and the demographic effects of this participation may be quite different than in a more modernized setting. The more obvious changes are those that occur in the occupational and industrial structure of the labor force. Equally significant may be the extent to which there is incompatibility between the roles of mother and worker (Weller, 1968b), which itself is a multifaceted and variable phenomenon rather than an absolute. Moreover, Hass (1972) suggests that a decline in total fertility must occur independently before women in role

> incompatible positions intentionally control their fertility in order to continue their employment. Thus, in a situation of declining fertility, women may perceive the possibility and desirability of roles other than motherhood, partly because fewer demands are made upon them by their smaller families and partly because the proportion of total activity that is nonfamily directed increases.[20]

Hass, Paula H. 1972 "Maternal Role Incompatibility and Fertility in Urban Latin America." The Journal of Social Issues 28 (Spring).

Weller, Robert H. 1968b "The Employment of Wives, Dominance and Fertility" Journal of Marriage and the Family 30 (August):437-442.

That the debate as to what comes first, high labour force participation or low fertility, is not yet over is evident in the comments of Concepcion in a 1974 article. After reporting that fertility of working women in the cities of Thailand, the Phillipines and West Malaysia is lower than those of non-working women, while in the rural areas the fertility of working women is slightly higher, she suggests "that reductions in family size might be achieved by the adoption of policies expressly related to the provision of new roles and interests for women supplementary or alternative to those of marriage."[21]

The association between female labour force participation and fertility, becomes particularly interesting in the light of recent decreases in fertility in developed nations. Although fertility has declined for all ages, Easterlin in looking at the two youngest age groups (15-19 and 20-24 who together account for more than half the total births in the U.S. in 1968) notes an important difference between the two. For the 15-19 year olds a decline in the proportion

married played a major part in the fertility decline for this group. For 20-24 year olds the reduction in fertility is largely a result of reductions in marital fertility.[22] Further "it appears that although women at all levels of education participated significantly in the fertility reduction, among the less well-educated a reduction in proportions marrying was a major factor, while among those with a high school education or better, lower marital fertility was the component chiefly responsible."[23]

Easterlin links these fertility declines to the notion of "relative economic status" of young adults. By this he means the income-earning possiblities of young adults relative to that of their parents--this reflects their ability to live in the style to which they had become accustomed prior to marriage.

> "The basic idea is that if young men--the potential breadwinners of households--find it easy to make enough money to establish homes in the style desired by them and their actual or prospective brides, then marriage and childbearing will be encouraged. On the other hand, if it is hard to earn enough to support the desired style of life, then the resulting economic stress will lead to deferment of marriage, and for those already married, to the use of contraceptive techniques to avoid childbearing, and perhaps also to the entry of wives into the labour market.[24]

The findings indicate the decreases in fertility that began in the late 1950's are coincident with declines in "relative economic status" of young adults. Although he does not report female labour force participation, the rates increased throughout the period he examined. It should be noted, however, that female participation in the labour force began to increase before fertility declines were evident. The question of what comes first, higher female labour force participation

or lower fertility still cannot be clearly answered.

CHILD STATUS

In developed countries research has examined not only family size and fertility but also the age of children as they are related to labour force participation. The tendency for smaller family size to be associated with higher participation is seen in the early work of Durand and consistently corroborated in later studies in a number of countries.[25] Since family size is related to ethnicity, socioeconomic status, and education as well as employment a number of studies have controlled for these effects.[26] Again the relationship is clearly confirmed. Gales' report, based on British census data, is illustrative of observations made at different times in different places.[27]

TABLE 2:1

ACTIVITY RATES OF WIVES BY NUMBERS OF DEPENDENT CHILDREN (E & W)[a]

Year	No. of dependent children of any age					
	0	1	2	3	4	5 or more
1961	33.6	30.1	23.5	18.4	15.2	10.3
1966	46.6	39.6	33.0	27.9	24.1	19.7

[a]Source: K.E. Gales and P.H. Marks "Twentieth Century Trends in the work of Women in England and Wales," Journal of the Royal Statistical Society, Series A (Genera) V. 137, Part 1, 1974 p. 68.

Siegel and Haas summarize some of the reasons for this relationship.

> Eyde found that college alumnae with high desire to work express a wish to have children later in life than do their classmates with low desire to work (11). Heer, finding that Catholic working wives have more influence

than others in family decisionmaking, suggests that the reason these wives have fewer children may be that they exercise more influence on family-size planning (23). An investigation which attempted to determine the extent of the relation between married women's outside involvements (including both paid employment and voluntary community activity) and their effectiveness in fertility planning yielded (49) some indication that working women had fewer children than those extensively involved in community service and that both working women and those extensively involved in community service wanted fewer children than those who were neither employed nor active in the community. Among Fisher's college-educated subjects in the 1930's, the nonworking women not only had more children but they also reported more miscarriages and more induced abortions (13). In a comparison between two groups of mothers, employed and unemployed, matched by distributions on various extraneous variables including family size, Nye (42) discovered that the unemployed mothers desired more children than did the employed.[28]

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11. EYDE, L.D. Work values and background factors as predictors of women's desire to work. Unpublished doctoral dissertation, Ohio State Univ., 1961.

13. FISHER, M.S. Marriage and work for college women. Vassar Alumnae Magazine, 1939, 24, 7-10.

23. HEER, D.M. Dominance and the working wife. Soc. Forces, 1958, 36, 148-153.

42. NYE, F.I. Employment status and maternal adjustment to children. Paper read at American Sociological Society, Chicago, 1959.

49. PRATT, L.V. The relationship of non-familial activity of wives to some aspects of family life. Unpublished doctoral dissertation, Univ. of Michigan, 1955.

Attitudinal differences between working women and non-working women in regards to child bearing and family planning, then, account for some part of the relationship between employment and number of children a woman has. Looking at this relationship from another perspective,

it is obvious that the more children a woman has the more demanding are her household activities and the more constrained she is from entering the labour force. In addition, finding adequate alternate child care arrangements becomes more difficult and more expensive. Even assuming that a woman with several children is highly motivated to work and is able to arrange for child care, she must earn a substantial income in order to pay for that care unless other adults (usually relatives) are present to provide care at little or no cost. Indeed, Sweet, and Skoulas find some indication that the presence of other adults in the home encourages the labour force participation of mothers.[29]

As children become older the demands within the home on mothers can be expected to become less onerous. Older children also can provide assistance with domestic chores and so lighten the demands on mothers. The relationship between age of children and mother's employment has been examined by Durand, Long, Nye and Hoffman, Kelsall and Mitchell, Mincer, Cain, Bowen and Finnigan, Dowdall, Piotrowski and others.[30] It has consistently been the case that the older a woman's children the more likely she is to work. As children become older mothers are more likely to enter employment and are more likely to do so on a full-time basis. Again data from Gales and Marks' article is illustrative.

TABLE 2:2

ACTIVITY RATES OF MARRIED WOMEN BY AGES OF DEPENDENT CHILDREN (E & W)[a]

Year	Child under 5		Child under 16		No child under 16	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
1961	5.2	6.3	11.0	13.2	22.7	10.0
1966	6.1	11.0	12.2	19.1	25.5	14.6

[a]Source: K.E. Gales and P.H. Marks "Twentieth Century Trends in the work of Women in England and Wales," Journal of the Royal Statistical Society, Series A (General) V. 137, Part 1, 1974, p. 68.

Gronau's work on the housewife's value of time shows clearly that the demand for and value of the mother's time declines as the child grows older.[31] By the age of 11, a child "does not affect his mother's price of time at all (any increase in demand for her time is offset by the child's contribution to home production)."[32] Education is an important determinant of the housewife's value of time particularly at the college level where it is highest. This finding supports and provides a rationale for the effects of childrens' age on female labour force participation.

In a recent study Landsberger shows that not only are older children less likely to constrain entry of mothers into the labour force but they also encourage entry.[33] The consumption of a family with older children is greater than the consumption of a family with

younger children. Since one way of providing for this increased consumption is to increase income, the presence of older children provides some impetus for married females to enter employment.

OCCUPATION

Occupation as a variable that influences participation has been examined from a number of perspectives.

1. Occupational opportunities in the labour market have frequently been noted as influencing female labour force participation. Durand for example sees a growing demand for "professional workers; clerical, sales and other white-collar workers; and semi-skilled industrial operatives--occupations for which women are well suited."[34] Long also points out that "The switch to sedentary and semi-skilled office and factory jobs was especially congenial to girls and women and would certainly facilitate the shift of females from housekeeping to gainful employment. But it may be doubted that this pull of opportunity was the sole, or the major factor drawing women into the labor force."[35] This attraction of females into the labour force by the employment opportunities developing in secondary and tertiarty occupational fields is noted also by Myrdal and Klein, Nye and Hoffman, Klein, to mention a few.[36]

2. As mentioned earlier Kelsall and Mitchell pointed out that regional differences in occupational structure are such as to affect female employment.[37] Leser points out that the number of females in paid employment is higher in advanced countries where "women-employing industries" are more prevalent than in underdeveloped countries.[38] Even among developed countries female partici-

pation is related to growth in female occupations (he uses employment in the textile and clothing trades to substantiate his case). Much later work by Oppenheimer goes farther than the above studies. She claims that:

> The basic industrial occupational shifts experienced in our society in the course of its development have led, on balance, to a rise in the demand for female labor--a rise that has been particularly marked in the 1940-1960 period. This growth in demand has been due primarily to the fact that the most rapidly expanding industries and occupations have for some time been major employers of women.
>
> Since there is evidence that the supply of female labor is responsive to labor demand, the most likely explanation of the postwar rise in the female work rate is that an increasing number of women have been drawn into the labour force in response to an expansion of job opportunities.[39]

3. There are also differences in propensity to work among women of different occupational skills. A good many studies note that females with technical and professional skills are more likely to be in the labour force than less skilled women.[40] This finding is discussed in more detail later in connection with the work of Bowen and Finnigan.[41]

4. Occupation of husband and father have also been examined as determinants of female employment. Females with manual labouring husbands are more likely to be employed, a fact which Kelsall and Mitchell attribute to greater economic necessity and greater acceptance of female employment in that stratum of society.[42] They found also that the effect of father's occupation is in the same direction.

With more detailed occupational data Nye and Hoffman find that "employment of the wives of professional men is low, but it is high for the wives of men in clerical work but low for wives of agricul-

tural workers."[43] Gales and Marks note a similar relationship in Britain.[44]

INCOME OF HUSBAND

Income of husband is tied to his occupation so one would expect some complimentarity in findings between these two variables. Long documents in considerable detail the existence of a negative income effect.[45] That is, he finds female participation to be negatively associated with income of husband. This finding is confirmed by a wide variety of studies in the United States.[46] Nye and Hoffman observed an attenuation of this effect in the late fifties with female employment lowest in upper income levels, highest in the middle income levels and lower at the lowest income levels.[47] They attribute this to a transition "from a situation in which women were forced into employment with their labour the primary source of family income, to one in which women are drawn into employment to raise family living standards or for other reasons." Other writers have pointed out that husbands with low incomes probably have poorly educated wives who are less employable and have lower earning potential than wives of higher income earners.[48] Also since younger males typically earn less than older workers, wives of low income earners are more likely to be young and have small children who deter participation.[49] This slight attenuation of the negative income effect has been noted also in Britain and Canada and is evident whether husband's wages or family income minus wife's income is used as the indicator.[50]

Oppenheimer identifies the "life-cycle squeeze" as an impetus for married women to enter employment.

> Studies of how economic needs vary by family life-cycle stage indicate that one high point of need occurs when men are in their forties and early fifties. However, 1960 census data on earnings patterns by age indicate that only in relatively high-level professional, managerial and sales occupations do average earnings peak at the same time family income needs are peaking. For most blue-collar and many medium and low-level white collar occupations, median earnings are highest for younger men, and men at an age when family costs are at their maximum are earning somewhat less, on the average. As a consequence, the families of such men run the risk of a deterioration in their level of living unless an additional income is brought into the household.[51]

When this observation is coupled with Gronau's finding that the demand for and value of the mother's time declines as the child grows older, one can see that as constraints on married female employment decrease, pressures for employment increase.[52]

The impact of husband's income on female labour force participation is supported by evidence from studies that have examined wife's motivations to work. In her book Britain's Married Women Workers which is based on a survey of British women, Klein reports that:

> Money is undoubtedly the largest incentive for married women to go out to work. Three out of every four women interviewed gave this as the main reason for having a paid job. It is, however, by no means the only incentive, as can be seen both from the frequency with which other reasons, such as interest in their work, boredom at home, pleasure in meeting people, etc. are mentioned, and from the fact that over one-half (51 per cent) of the women who had given money as their main motive for working away from home stated that they would still like having a job even if their family income were larger.[53]

Sobol's findings support Kleins observations. She looks also at the characteristics of those who give economic needs as their reason for working and finds that their husbands are not the lowest

income earners but rather are in the low and middle income range.[54] Of all employed women, those who claim economic necessity are the most poorly educated and the most likely to have pre-school children. As husband's income rises larger numbers of employed women give self-fulfillment and stimulation as a reason for employment.

INCOME OF FEMALES

Because it is difficult to measure a person's income or more correctly potential income when they are not employed, attempts to relate a female's income to her participation have relied on a variety of proxy measures usually education, occupation, or median income. Since income is closely related to education and occupation and since the earlier discussion demonstrated that higher participation is related to higher educational and occupational levels it is possible to generalize from such findings and conclude that participation rises as earning potential rises. As many writers point out, both the pecuniary and non-pecuniary rewards are higher for better educated women and they are therefore more likely to be on the labour force.

The clearest indication of the effects of female income are available in research using aggregative data where female participation rates for areas are correlated with median wage rates of an area. Research by Miner, Cain, and Bowen and Finnigan shows labour force participation rates of married females increases directly as full-time earnings of females increase.[55] Mincer shows this to be the case also when individual data are used.

Havens in a study using 1960 US census data demonstrated an interesting link between female income and marital status.[56] While

it has long been recognized that low income males are more likely to be single or divorced the reverse is true for females. For example 30% of females who earn $10,000 or more are single or divorced while only 3.8% of males in that income category are single or divorced.[57] "Some will certainly argue that females who are divorced or never married must, because they are not married, earn more money. However, this "need" factor does not explain why females with high incomes are so disproportionally represented" in these categories.[58] It may be that females who are able to earn higher incomes have, as a consequence greater latitude in choice about their marital status. It may also be that because the ability to earn high income involves higher educational levels, more continuous life time work patterns, and more commitment in time and energy than low paying jobs, there is greater conflict between such work roles and traditional female roles. One way of avoiding or reducing such conflict is to remain single or become divorced.

CULTURAL AND PSYCHOLOGICAL VARIABLES

A variety of cultural and/or psychological variables have been explored as possible influences on the propensity of females to work. One type of evidence comes from cross-cultural work. Galenson shows that among developed nations, Holland and Norway have very low rates of female labour force participation. In each of these cases participation rates are below 25% (less than one quarter of all females 15-65 are in the labour force) and the rates for married females are even lower at less than 10%. On the other hand in many eastern European countries female participation rates are closer to 75%.[59]

This is a clear reflection of popular attitudes towards female participation as well as a reflection of government policy. As Galenson points out not only have studies demonstrated popular disapproval of employment of married women in Holland and Norway but also such factors as low levels of female education make females less employable.[59] In regards to governmental policy she points out that in Holland there has been until recently a legal requirement that women retire on marriage and that such requirements still exist in private union agreements.[60] In the USSR and other Eastern European countries attitudes are more favorable to female employment, education is more accessible to women and perhaps, more important, government policy which provides for such things as day care, and maternity leave encourages female employment.

Studies in the United States have demonstrated cultural differences of another sort. Black women for example are more likely to be employed than white women.[61] Protestants are more likely to be employed than Catholics.[62]

Rapoport and Rapoport explored a number of background factors which have been mentioned in the literature as contributing to higher female employment.[63] Using data on British University graduates they found that females who are first born, who are daughters of manual workers, and whose mothers were continuously employed were more likely to be continuously employed.

Other studies have examined work commitment and attitudes towards female employment in relation to participation. The findings are that women with high work commitment are more likely to be employed continuously and that the most favorable attitudes towards

work are held by working females and their husbands.[64] The difficulty with such results is that it is difficult to determine whether the behavior shapes the attitudes or the attitudes shape the behaviour.

SELECTED STUDIES

The studies to which we now turn are special in several senses and therefore deserve particular mention. They are special in the sense that they consider many of the variables discussed above as well as others (e.g. unemployment of husband, home ownership, presence of other adults) and they do so using regression analysis which allows for an examination of the joint effects of these variables on participation. They are special also in that they use not only cross-sectional but also time-series data and hence, attempt to explain variations in participation over time, as well as at a point in time.

Starting off from his elaborations of labour supply theory, Mincer examined the relationship of many of the above variables and some additional ones to the labour force participation of married women. In this study the effects of age of children, and education of wife were in the direction noted above but not statistically significant. Although he found that the effects of a husband's unemployment were to increase female participation this too was not significant.[65]

As husband's incomes increase, wife's participation rates decline but wife's participation rises as her wage rate rises and this latter effect outweighs the former. In addition, while female participation is more likely when husband's income is low, this effect is stronger when husband's current income is lower than his permanent

income.[66] That is, a wife is more likely to be in the labour force if her husband's income is temporarily low than if it is permanently so...using time series data on earnings changes over census decades for men, women and families Mincer found that he could account for at least 50% and in some decades all of the increase in married female labour force participation on that basis.[67]

Following Mincer, Cain used census data to examine the correlates of participation at a given point in time and increases in female labour force participation over time. Working with aggregated cross-sectional data he found higher fertility rates and higher unemployment rates correlated negatively with female labour force participation rates whereas participation was positively related to the median income of an area. Furthermore, contrary to Mincer's findings, the effects of these variables were statistically significant.[68] In this aspect of Cain's work as in Mincer's, female participation rates rose as female wage rates rose (positive wage effect) and this effect was strong enough to counteract the negative income effect (i.e., lower female participation associated with higher male income).[69]

The findings from disaggregated survey data substantiated all of the above findings except those regarding unemployment. Individual data showed wives of unemployed husbands more likely to be economically active. While the net effect of unemployment may be to deter females as a group from entering employment "the specific effect on those families where the husband is unemployed is positive."[70] That is, on the aggregate level the discouraged worker hypothesis holds, on the individual level the additional worker hypothesis holds.

In addition to the above variables Cain examined the effects of urban residence, owning a house, marital instability, and the presence of other adults in the home on participation. None of these relationships were found to be significant.

> "One of the principal issues in the explanation of the increase in work rates of wives over time involves the comparative sizes of the elasticities of wages and income. Since the earnings of females and males have been rising about the same rate over time, an explanation for the secular increase in work rates is that the positive effect on the labor supply of the rise in wages outweighs the negative effects of the rise in incomes. The major finding made by Mincer was that, for wives, the positive wage effect exceeds the absolute value of the negative income effect. This finding was weakened by my research but not overturned."[71]

Although cross-section results pertaining to the effects of education, children and unemployment are consistent with rising female participation rates over time it is difficult to translate these cross-sectional findings into long term effects. Cain concludes that:

> The time series increase in work by married women remains only partially explained. A more complete explanation requires more information about the interrelations of work, wage rates, and fertility, about changes in work in the home, about the non-pecuniary aspects of marketwork and about changes in attitudes (or tastes).[72]

Like Cain, Bowen and Finnegan conducted a major study of labour force participation that sought to examine the correlates of participation at a point in time and to examine changes in participation over time. Briefly summarized, their findings are that:

1. As income of husband or family income minus wife's income rises, female participation decreased, however, this effect is countered by stronger positive influence of

increases in female earnings.[73]

2. Mothers of young children are significantly less likely to be employed than other wives.[74]

3. Both education and occupation of the female have a significant effect on participation. Females with post-secondary education and females in managerial and professional occupations have the highest rates of labour force participation.[75]

4. In regards to unemployment, the additional workers effect is evident when individual data are used while the discouraged worker effect is evident when aggregated data are used. Female entry into the labour force is encouraged more by temporary decreases in family income than by permanent decreases.[76]

5. On the supposition that housing affects the availability of married females for employment, Bowen and Finnigan included both size of dwelling and ownership of dwelling in their analysis of individual data. Although they had expected larger homes and owned dwellings to be negatively associated with participation, no such relationship was evident in their analysis.[77]

6. Using intercity time series data just under one-half of the increase between 1948 and 1965 in the labour force participation of married women can be other adults.

> accounted for by changes in such factors as income of husbands, unemployment of husbands, earnings of females, education of females, percentage of population who are female, wages of domestics, and industry mix. These last three factors are used to indicate the extent of competition for jobs, the cost of mother substitutes and the prevalence of female jobs. Using ex post facto estimations they conclude that decreases in hours of work, increased domestic labour saving devices and convenience services, and higher family income aspirations account for a large proportion of the remaining increase in labour force participation of married females.[78]

These findings are in the main confirmation of the work of Mincer and Cain as well as others discussed above. While there has been a good deal of work on the cross-sectional correlates of participation, there has been much less work on increases in female participation over time. Further the explanations of changes over time have been less satisfactory.

THE CANADIAN LITERATURE

Studies of labour force participation of Canadian females are relatively few and are relatively recent. Six studies are reviewed here; all done since 1967. Because of their recency, these Canadian works have benefited from the insights and findings of much of the research reviewed above.

On the basis of 1961 data Allingham examined the effects of marital status, education and age on labour force participation and

concluded that participation ranks highest to lowest for:

> (a) Single women of 'high' education,
> (b) Single women of 'low' education,
> (c) Married women of 'high' education,
> (d) Married women of 'low' education.
>
> Since age is the residual factor, the relative importance of the three variables is clearly marital status, education, then age.
>
> Although age is of least importance,...some pattern in its effect is evident....Age affects the participation rates of single and married women differently. Within each of the educational groups of single females, age is roughly related in an inverse manner to participation. The older the women, the less likely they are to participate even with education controlled.
>
> The pattern for married females is more complex. Within each of the educational groups of married women, the top three rates relate to those aged 40-44, 45-49 and 50-54, ages at which labour force re-entry occurs, after the prime child-bearing-and-caring years have passed. Next come rates for women at earlier phases of the family cycle. The lowest rates pertain to women in the oldest age group considered--60-64.[79]

Detailed analysis by Allingham and Spencer, using 1961 data, shows that 72% of the variance in labour force participation of married women is accounted for by five factors: age, education of woman, education of husband (education is used here as a proxy for income), child status and residence.[80] This work also indicates the relative importance of four of these variables for different age groups.

TABLE 2:3

RANK ORDER OF LABOUR FORCE PARTICIPATION VARIABLES[a]

	Age Group				
	15-24	25-34	35-44	45-54	55-64
Education of wife	2	2	2	1	1
Education of husband	4	3	3	2	2
Child status	1	1	1	3	4
Residence	3	4	4	4	3

[a]Source: J.D. Allingham and B.C. Spencer, Women Who Work: Part II. Dominion Bureau of Statistics, "Special Labour Force Studies." Ottawa: Queen's Printer, 1968, p. 15.

Ostry's The Female Worker in Canada is the most comprehensive of the Canadian studies.[81] She first traces historical developments in labour force participation of Canadian women--noting the constant growth in female employment outside the home and the emergence of the two phase pattern of female participation in the 1960 Census data.

The body of Ostry's work involves a detailed examination of cross-sectional female participation profiles. Using participation profiles, the relationship of a number of variables to female economic activity is documented. Observations in relation to age, residence, marital status, child status, and education are consistent with the findings of Allingham, and Allingham and Spencer. In addition, the effects of husband's income and husband's occupation on participation are assessed. Controlling for age of women and age of children, participation declines as husband's income rises. There is a tendency,

however, for lower participation among females under 35 years of age whose husbands are in the lowest income category.[82] This is consistent with the attenuation of the negative income effect noted earlier. Labour force participation was highest for women whose husbands were in clerical, sales, or service occupations.[83] Again this is consistent with the observations of Nye and Hoffman, and others.

The most interesting part of Ostry's work is found in her Appendix where the results of regression analysis are reported. Using child status, income of husband, region, residence, and age of wife as independent variables 66.23% of the variance in labour force participation is explained. A better explanation results when education of wife is substituted for age of wife with 72.54% of the variance explained.[84] Ostry notes here that since husbands and wives tend to be somewhat alike in the educational background and hence earning power, that the negative effects of husband's income is counteracted by the positive effect of wife's education.

Females living in Quebec and the Maritimes are much less likely to be in the labour force than females in other parts of the country. This study shows those regional factors to be much more important in explaining participation than residence factors.[85] Even region, however, is less important than income of husband, education of wife or child status.

Spencer and Featherstone, using data from the 1964 Survey of Consumer Finances support the findings in relation to husband's income, child status and region.[86] They look also at unemployment of husband, metropolitan residence, family finances, and the presence of

Like U.S. Studies they found that women are more likely to be in the labour force if their husbands are unemployed, if they reside in metropolitan areas, if there are other adults in the home, and if the family has debts.[87]

Continuing in the same vein Spencer used data from a survey conducted in Metropolitan Toronto to examine the effects of a number of other variables.[88] In summary Spencer found that:

> 1. Earlier findings in regard to age of children, income of husband, wife's age, and wife's education are confirmed. Using more detailed classification, he found that children under one year of age constituted the greatest deterrent to employment. Also as a result of more detailed classification, it appears that a female is more likely to be in the labour force if her education is technical--vocational rather than academic.[89]
>
> 2. Pregnancy as well as the presence of three or more children act as a considerable deterrent to participation.[90]
>
> 3. In regards to place of birth, Spencer found women born outside North America more likely to be in the labour force. This finding appears to be inconsistent with the findings in relation to age at immigration. Females who immigrated before thirty are less likely to be in the labour force than native born while their participation is similar to Canadian born females if they immigrated after thirty.[91]

4. Religious affiliation which might be expected to tap attitudinal and fertility factors was also related to labour force participation. Here there appear to be no differences between Protestant and Roman Catholic or other women but Jewish females participate in the labour force at significantly lower levels.[92]

5. As in the earlier study Spencer considers the effect of husband's employment on female participation and finds unemployment is likely to result in increased participation only if it is not of long duration. Wives were most likely to be in the labour force if their husbands were unemployed more than one week but less than two months.[93]

6. Unlike the previous Canadian studies reviewed, Spencer used two measures of labour force participation. In the first case two categories of the dependent variable were used, in the second case participation was categorized as full-time, regular part-time, occasional part-time, and all other. The best explanation was possible when the finer categorization was used but even then only 24% of the variance in participation was accounted for by the broad range of independent variables.[94] This is considerably less than the earlier studies by Allingham and spencer, and Ostry.

The most recent study of female labour supply in Canada uses both individual and aggregated data.[95] Summarizing his findings

based on data from the 1968 Survey of Consumer Finances Skoulas says:

> Findings of this analysis indicate that home ownership has a negative influence on the wife's propensity to be in the labour force, and the presence of adults, other than husband and wife, in the family positively affects the wife's probability of engaging in market work. However, the latter statement is not supported by the analysis of macro-data. Moreover, evidence from the study suggests that the husband's labour force status affects the wife's labour force behaviour. The wife is more likely to be in the labour force if her husband is unemployed than if he is employed. The strength of this effect depends on the duration of husband's unemployment, his weekly earnings, and the "normal" level of family income excluding wife's earnings. The husband's labour force status "not in the labour force" negatively affects the wife's labour force membership.
>
> The findings support the conclusion that there is, for all levels of income, a negative relationship between the wife's labour force participation and measures of the family's income excluding wife's earnings. However, the magnitude of the effect of a change in income on the wife's labour force participation is small for low income levels (below $6,000) and much stronger at the upper end of the income scale. Furthermore there is clear evidence consistent with previous studies that the presence of young children, in particular preschoolers, in the family is a strong deterrent to mother's labour force membership.
>
> The region and place (urban-rural) of family's residence are factors affecting the wife's decision concerning her labour force status. The results show that married women in eastern Canada, particularly Quebec, have the lowest propensity to participate in the labour force and that married women in the Prairie provinces demonstrate the highest tendency to engage in market work. In addition, urban women demonstrate a stronger propensity to participate in the labour force than their rural counterparts. Also, for urban wives, the size of the center in which they reside does not appear to have a substantial influence on their decision to enter the labour force.
>
> The labour force membership of married women varies directly with their formal education. The analysis with micro-data, where the wife's education was used as a proxy for her market potential earnings, reveals a remarkable pattern of increasing labour force participation with rising educational level....

> The wife's age appears to have an important bearing on her labour force behaviour. The empirical evidence demonstrates, in a very regular pattern, that increasing age diminishes the wife's probability of being in the labour force. Furthermore, the findings indicate that the wife's immigration status (immigrant, or Canadian-born) affects the decision concerning her labour force status. The immigrant wife demonstrates a different pattern of market work, with a higher labour force membership than her Canadian-born counterpart until she is integrated into the Canadian social and cultural stream.[96]

On the basis of aggregated data Skoulas demonstrated that the positive female wage effect is larger than the negative income effect, that female participation rises as the industrial mix provides more "female jobs," and that the additional worker effect is stronger than the discouraged worker effect.[97] The first two findings support findings based on American data though the last does not. The investigator points out that other Canadian studies have supported the additional worker hypothesis.[98]

The Canadian literature while more limited than the American literature provides a considerable basis for further work on female labour force participation.

In this review, the relationship of female labour force participation to a variety of independent variables has been examined. A summary of those relationships explored in the preceeding pages that are the focus of this research follows in Chapter III under the EXPECTATIONS FOR THIS STUDY.

FOOTNOTES

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[66]Ibid., pp. 76-78.

[67]Ibid., p. 93.

[68]Cain, op. cit., p. 60.

[69]Ibid.

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[71]Ibid., p. 117.

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[73]Bowen and Finnegan, op. cit., pp. 132-147.

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CHAPTER III

THE DATA, EXPECTATIONS, AND ANALYSIS

Chapter I enumerates three concerns on which this study will focus:

1. An examination of the growth of the female labour force in Canada between 1961 and 1971.

2. An examination of the extent to which relationships between labour force participation and such factors as age, education, marital status, child status, and others, observed for earlier periods and in other industrialized societies are evident in Canada in 1971.

3. An examination of the extent to which the two-phase pattern of labour force participation is observable in 1971.

Chapter II reviews the effects of a large number of variables on labour force participation of females. This study, because it relies on census data, cannot explore many relationships that the literature demonstrates to be fruitful for understanding labour force participation of women. Knowledge of relationships explored in other studies, though not analysed in this study can, however, elucidate the observations and conclusions made here.

THE DATA

A major source of information on female labour force participation used in this study is derived from census data routinely published by Statistics Canada. Since changes in participation between 1961 and 1971 are of primary interest here, information pertaining to these two census years is used extensively.

Although the 1961-1971 time comparison forms an important part of the analysis undertaken here, there is, as well, a comparison made between female labour force participation and its correlates in Canada and the United States for this time period (1960 and 1970 census years for the U. S.). Such a comparison is useful because there are substantial demographic and cultural similarities between the two countries that allow for some generalization of findings concerning one country to the other. In addition, demographic trends and relationships that appear in the United States at one point in time are frequently observable in Canada at a later date. An important case in point is the two-phase pattern of labour force participation that appeared in the United States in 1950 and in Canada in 1961. For the purposes of such comparison, data published by the United States Bureau of the Census are used.

A reliance on routinely published sources places constraints on the number of independent variables that can be examined in relation to female labour force participation. For Canada the influence of age, residence, region, birthplace, education, marital status, child status, husband's labour force status, and husband's income[1] on female labour force participation are examined. For the United States, the influence of age, residence, education, marital status and child status on female labour force participation are examined.

In addition to routinely published Canadian data, a special crosstabulation was obtained from Statistics Canada. Because this tabulation involves simultaneous cross-classification, the number of variables included was limited in order to avoid small cell

frequencies. Judicious guesses as to which were the most important variables were made on the basis of the available published data. On this basis, residence and birth place were excluded from the tabulation. Single women were also excluded because no data were collected on their child status. Finally, income data were not retrievable from the family file at the time these tabulations were made. This last exclusion represents the most serious weakness in the data since it is a variable that has been consistently shown to be of considerable importance in its effect on female labour force participation.

A special limitation on these data deserves mention. In order to obtain data pertaining to child status, the family files of the census were used. This means that females whose husbands are absent and women who are widowed or divorced are underrepresented. That is to say, that women who live alone though they may fall in one of these marital categories are not included in the family files and hence are not included in this tabulation.

EXPECTATIONS FOR THE STUDY

Within the confines of the available data and on the basis of the theoretical and empirical work outlined earlier, the following hypotheses represent the expected outcomes of this study:

A. In keeping with earlier trends towards increasing female labour force participation, it is expected that all women whatever their demographic characteristics will participate at higher levels in 1971 than in 1961.

B. While a continuing rise in participation is expected for women of all ages in 1971, the greatest increases are expected for women between 20-24 and between 35-54. That is, it is expected that the two-phase pattern of participation will emerge more clearly in 1971 than was the case in 1961.

C. Considering the 1971 data alone, it is expected that:

1. The highest levels of participation will occur at ages 20-24 followed by ages 45-54 and ages 35-44;

2. Participation will vary directly with size of urban center and will be lowest for non-farm women;

3. Foreign born women will participate in the labour force at higher levels than native born women;

4. Labour force participation rates will be highest for women in Ontario followed in order by those from the Prairies, British Columbia, Quebec and the Maritimes;

5. With regard to education, the female labour force participation rates are expected to vary directly with educational level;

6. The highest labour force participation rates are expected for single women, followed by widowed and

divorced women and finally, by married women;

7. The constraining effect of children, particularly young children are expected to be reflected in higher labour force participation rates of women without children as compared to women with children and in higher rates for women with older children as compared to women with young children;

8. Economic need as a factor encouraging female labour force participation will be reflected in higher participation rates among women whose husbands are not in the labour force and in higher participation rates for women whose husbands' income is low.

ANALYSIS

The analysis of the data occurs in two parts. Chapter IV uses cross-sectional participation data to examine changes in the female labour force in Canada and the United States between 1961 (U.S.-1960) and 1971 (U.S.-1970). This chapter also explores the relationship between the dependent variable (labour force participation) and each of the independent variables (age, residence, region, birthplace, education, marital status, child status, husband's income, and husband's labour force status). Finally the data are examined for the emergence of the two-phase pattern of female labour force participation. Data used in this chapter are derived from the several sources mentioned above. The analytical techniques are

relatively simple ones involving percentages and age specific participation rates.

Chapter V concentrates on the relationship between labour force participation and the various independent variables for married women only. In this section only data from the 1971 Canadian Census are used. Because of the data limitations described above the only independent variables that could be included are age, region, education, and child status.

Regression Analysis

In order to learn more about the factors affecting the supply of married women in the Canadian labour force, Chapter V uses regression techniques and fits a linear probability model to cross-sectional observations on married Canadian women. Multiple regression allows for the analysis or the indication of the relationship between a dependent variable and a set of independent variables. It makes possible the specification of the amount of variation in the dependent variable that can be accounted for by all the independent variables acting together.

When used with sample data, regression analysis makes possible inferences about a population from a knowledge of relationships in a sample. In this study the data are blown up from a very large (one in three) sample that was forced to conform to several 100% basic demographic characteristics at the lowest possible areal level. Hence, inference is not an important objective. Multiple regression is used here primarily as a descriptive device and as such is used to summarize the relationship of variables and to break down those relationships

in order to assess the importance of particular independent variables in terms of their effect on the dependent variable.

Multiple regression analysis necessitates the acceptance of certain assumptions.

1. It is assumed that the relationships among variables are linear and additive. This assumption is examined through the use of restricted models in the regression analysis.[2]

2. It is assumed that the distributions of the values of the dependent variable for each value of the independent variables are normal and that the reverse also holds (i.e. multivariate normality). This assumption can be relaxed because of the large N.[3]

3. It is assumed that the variances of the distributions of the dependent variable are the same for each value of the independent variables (i.e, homoscedasticity). This assumption is violated because the dependent variable is dichotomous. As a consequence, tests of significance are only approximations and are to be regarded with caution.[4]

The use of cross-sectional observations requires that each of the independent variables as well as the dependent variable are represented by dummy variables. "A set of dummy variables is 'created' by treating each category of a nominal variable as a separate variable and assigning arbitrary scores for all cases depending upon their presence or absence in each of the categories."[5] To illustrate, the variable AGE 1 would take the value of one for

individuals who are between 15-24 years of age and a value of zero if they are not; the variable AGE 2 would take the value of one for individuals who are between 25-34 years of age and a value of zero if they are not. Five sets of dummy variables representing the independent variables--age (four dummy variables), region (four dummy variables), education (three dummy variables), child status (two dummy variables); and the dependent variable--labour force status (one dummy variable); are used.

"Since the dummy variables have artbitrary metric values of 0 and 1, they may be treated as interval variables and inserted into a regression equation. However, the inclusion of all dummies created from a given nominal variable would render the normal equation unsolvable because the kth dummy variable is completely determined by the first k-1 dummies entered into the regression equation."[6] A constraint is therefore, introduced to overcome this problem. One dummy is excluded from the equation and the sum of the estimated regression coefficients of each set of dummy variables is constrained to equal zero. When this is done, the constant equals the mean value of the dependent variable and the mean or constant becomes a reference point for the regression coefficients. That is, the regression coefficients represent differences from the mean value or constant. As a result "testing whether the estimated coefficients of individual variables (from a set of dummy variables) are significantly different from zero is in effect testing the significance of the difference between"[7] those coefficients and the constant term.

The general form of the regression equation when dummy variables are used is given by

$$Y' = A + B_1 X_1 + B_2 X_2 + \ldots B_{k-1} X_{k-1} + E$$

where A is the Y intercept and is a constant

$B_{1\ldots k-1}$ are the regression coefficients

$X_{1\ldots k-1}$ are the dummy variables representing the categories of an independent variable excluding the reference category

and E is the error term.

A regression coefficient represents the slope of the regression line of the dependent variable on an independent variable "that would be obtained by holding out or holding constant each of the remaining independent variables considered in the regression equation."[8] Such coefficients are constants and indicate the expected change in the dependent variable with one unit of change in an independent variable.

In order to determine the statistical significance of regression coefficients, the ratio of a regression coefficient to its standard error can be referred to a table of the distribution of t. A less exact but simpler indication of statistical significance, and the one used here, is that the regression coefficient must be at least twice as large as its standard error to yield significance at the .05 level or better.[9]

Because different scales of measurement are used for different independent variables, the regression coefficients are not comparable and must be standardized. Such standardized coefficients are called beta weights and they reflect the relative effect of individual independent variables on the dependent variable. In other words, the change in the dependent variable that occurs when an independent

variable changes by a standardized amount and all other independent variables are controlled is indicated by the relevant beta weight.

The beta weight is given by

$$\beta_{yx} = B_{yx}\left(\frac{s_x}{s_y}\right)$$

where β_{yx} is the beta weight

B_{yx} is the regression coefficient

s_x is the standard deviation of X

and s_y is the standard deviation of Y.[10]

It is most appropriate to use standardized coefficients "in assessing the overall effect of one variable over another variable in the same sample or population. However, if one is interested...in comparing parameters of one population to those of another the unstandardized coefficients should be preferred."[11]

The coefficient of determination or multiple R^2 indicates the amount of variation in the dependent variable that can be accounted for by all of the independent variables acting together. A high R^2 would in general indicate that the explanatory power of the chosen set of independent variables vis-à-vis the dependent variables is good. While this is desirable, Duncan points out that the magnitude of the coefficient of determination should not be overemphasized.[12] The magnitude of R^2 can be increased simply by adding more independent variables that have little substantive significance. Inclusion of an independent variable that is essentially an alternate measure of the dependent variable will also inflate the size of R^2. Most importantly the use of data at a high level of aggregation also yields high R^2. Because of these possibilities, the size of the coefficient of

determination may be misleading. "The real utility of R^2 is that it tells us something about the precision of our estimates of coefficients, since the standard error of a coefficient is a function, among other things, of R^2."[13]

The significance of the association between the dependent variable and the independent variables taken together is given by the overall F-statistic. Because of the large number of observations used in this analysis the F's can generally be expected to be large and significant.

SUMMARY

Through comparisons between 1961 and 1971 and comparisons between Canada and the United States, Chapter IV examines the growth in female labour force participation in Canada, the emergence of the two-phase pattern of female labour force participation and the relationship of a number of independent variables to participation. Using regression analysis, Chapter V examines the nature and strength of the relationship between region, age, education and child status and labour force participation of married females, husband present in Canada in 1971.

FOOTNOTES

[1]The data presently available from the 1971 census on husband's income are extremely limited hence, this analysis can give only a hint of the importance of this independent variable.

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[7]Skoulas, op. cit., p. 50.

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CHAPTER IV

CROSS SECTIONAL COMPARISONS

INTRODUCTION

The past decade (1961 to 1971) has seen the greatest increases in female labour force participation in this century. According to Ostry, just over 14% of adult women were in the labour force in 1901.[1] In the sixty years since, participation climbed gradually to 29.3% in 1961. By 1971 this figure rose to 40%, an increase of more than 36.5% in ten years. Table 4:1 details the increases in labour force participation over the past fifty years.

As female participation rates have climbed so has their share in the labour force. At the turn of the century women constituted less than 15% of the total labour force. In the past ten years this figure has risen from just under 30% in 1961 to just short of 35% in 1971.

This chapter examines the relationship of age, residence, birthplace, region, education and marital status to female labour force participation. For married women the relationship of residence, region, education, child status, husband's labour force status and husband's income is explored in detail. Changes over the 1961-1971 decade are looked at with an eye to discerning trends over time and to accounting for the sources of change over time. In addition, comparisons with the United States are made in an attempt to elucidate trends and sources of change. Finally, the data are examined for the con-

TABLE 4:1

FEMALE AGE SPECIFIC PARTICIPATION RATES, CANADA 1921-1971[a]

	Age								
Year	14-19	20-24	25-34	35-44	45-54	55-64	35-64	65+	14 and over
1921	29.6	39.8	19.5	12.2[b]	n.a.	n.a.	12.0	6.6	19.9
1931	26.5	47.8	24.4	14.3	12.9	11.3	13.2	6.2	21.8
1941	26.8	46.9	27.9	18.1	14.5	11.1	15.2	5.8	22.9
1951	33.7	48.8	25.4	22.3	21.1	13.5	19.8	4.5	24.4
1961	31.7[c]	50.7	29.2	31.2	32.8	23.1	29.9	6.1	29.3
1971	37.0	62.8	44.5	43.9	44.4	34.4	41.5	8.3	39.9

[a]Source: S. Ostry, The Female Worker in Canada (Ottawa: Dominion Bureau of Statistics, 1968) p. 3 and Canada, Statistics Canada, 1971 Census of Canada: Labour Force and Individual Income, Vol. III—Part: 1 (Bulletin 3.1-2) pp. 2-1 to 2-2.

[b]Women 35-49

[c]Women 15-19

tinued emergence of the two-phase cycle of labour force participation.

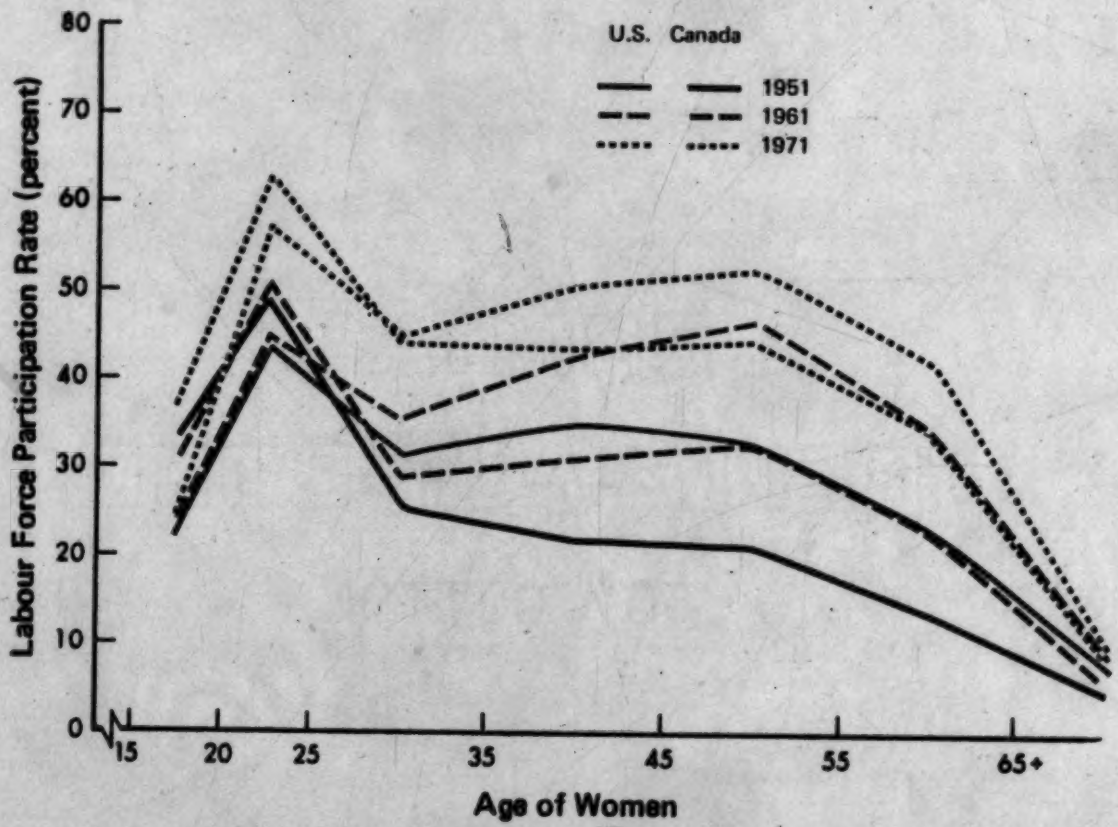
AGE

Table 4:1 shows clearly that increases in female labour force activity have been substantial at all ages but are greatest in the middle of the age range. Although precise determination is not possible, the rise in participation in the 35-54 age range exceeds 30 percentage points (1971 rates are more than triple 1921 rates) over the fifty year period.

Chapter II made mention of the emergence of the two-phase working life cycle in the United States in the 1950's. As indicated this pattern began to appear in Canada in 1961. Chart 4:1 graphs female participation profiles for Canada and the United States for the years 1951 to 1971. The two-phase pattern of participation, wherein women leave the labour force in the 25-34 year age range and then re-enter after that time, becomes more dramatic in 1970 than in 1960 in the United States.

In the Canadian case the two-phase pattern is less clear in 1971 than in 1961, in fact, instead of a rise in rates between 35 and 54 years of age there is a plateau in the curve. Despite these differences in the cases of the two countries the crude participation rates are 39.9 for both countries. Higher initial rates in Canada would seem to compensate for lower later rates.

Further examination of the data for both Canada and the United States will hopefully clarify these differences. It should be noted that the Canadian case seems to be atypical of developed countries most of which have a marked second peak, or better hump in participation.



[a]Source: Table 3:1

[b]Source: U.S., Department of Commerce, Bureau of the Census, 1970 Census of Population: Employment Status and Work Experience, Vol. II, Pc (2)-6A, p. 68.

[c]14-19 for the United States 1951-1971 and for Canada 1951.

CHART 4:1
FEMALE LABOUR FORCE PARTICIPATION PROFILE, CANADA 1951–1971[a] AND THE UNITED STATES 1950–1970[b]

RESIDENCE

Area of residence, as noted in the review of the literature, affects female labour force participation with urban women more active than rural women. In 1961 the participation rate was 33.0 for urban women, 22.0 for rural farm women, and 19.9 for rural non-farm women. Table 4:2 shows that this ordering is generally maintained when residence is cross-classified by age. The exceptions in 1961 are 15-19 year olds and 45-54 year olds in rural farm areas who are less active than their rural non-farm peers.

It is commonly assumed that these residential differences are related to the greater availability of employment and household conveniences in urban areas as opposed to rural areas.[2] An additional factor is that the average family size is greater in rural areas and, hence, the burdens of child care are greater.[3] Within rural farm areas employment is more readily available especially in the form of unpaid family labour. Also, there may be more opportunity to keep one's children with one as one works. In the case of 15-19 year olds, the lower participation rates may reflect fewer employment opportunities for such females on farms.

As in 1961, in 1971 urban women are most active, followed by rural farm women, and finally by rural non-farm women. The 1971 participation rates are 41.7 for urban women, 40.9 for rural farm women, 30.0 for rural non-farm women. Although the general ranking of rates by residence remains the same, a remarkable increase in participation is evident for rural farm women. Between 1961 and 1971 labour force participation rates increased 18.9 points (86%) for rural farm

women, 10.1 points (51%) for rural non-farm women and 8.7 points (26%) for urban women. In short, the gap between urban and rural women in terms of labour force activity narrowed. At the same time the proportion of women residing in rural areas declined, most notably in rural farm areas. There were 69% fewer rural farm women in 1971 than in 1961, a decrease comparable to the decline in the total rural farm population.

A perusal of the age specific rates in Table 4:2 indicates that rural farm women over 35 have higher participation rates than urban women in 1971. The larger family size, and lesser availability of employment and conveniences, no doubt, still has some explanatory value in 1971, particularly in regard to rural non-farm women. One wonders whether changes in these factors are sufficiently large to explain the increase in employment of rural farm women. Although no test is possible, intuitively, a better explanation might be that farm employment is now more socially acceptable for women. This seems particularly reasonable since increasing rural productivity and the consequent decline in the proportion of the total population engaged in farm labour would lead one to expect decreases in participation of farm women. Indeed, the increase in participation among rural farm women may be a matter of reporting rather than practice. That is, rural farm women because of attitudinal changes in society may have reported unpaid family work in 1971 but did not in 1961 though they may have been equally active. There was, of course, no change in the census definition but there may have been a change in respondents' reports.

Table 4:3 shows age specific participation rates by size of urban area. Since no comparable breakdown is available for 1961, it

TABLE 4:2

FEMALE LABOUR FORCE PARTICIPATION RATES BY AGE AND RESIDENCE, CANADA 1961[a] and 1971[b]

Age	Residence									
	Urban		Rural Total		Rural Non-Farm		Rural Farm		Total	
	1961	1971	1961	1971	1961	1971	1961	1971	1961	1971
15-19	39.7	39.7	22.5	28.7	24.1	28.7	20.3	30.6	34.2	36.9
20-24	54.6	65.8	33.2	48.5	30.4	46.1	39.7	58.1	49.5	62.8
25-34	32.8	46.5	19.5	36.1	18.1	33.1	22.7	45.9	29.6	44.5
35-44	34.1	45.0	22.4	39.4	21.9	35.7	23.2	47.7	31.1	43.8
45-54	36.5	45.9	24.8	39.0	25.3	35.5	24.1	46.1	33.4	44.4
55-64	26.8	35.7	18.1	29.5	17.4	26.2	19.2	38.6	24.4	34.3
65+	7.4	8.3	4.8	7.8	4.0	6.0	6.6	16.4	6.7	8.2
Total	33.0	41.7	20.6	32.9	19.9	30.0	22.0	40.9	29.7	39.9
% of Pop.	73.6	78.9	26.4	21.1	16.8	15.5	9.6	5.6	100	100

[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: General Review--The Canadian Labour Force, Vol. VII--Part: 1 (Bulletin 7.1-12) p. 12-32.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-6), pp. 11-3 to 11-8.

TABLE 4:3

FEMALE LABOUR FORCE PARTICIPATION RATES BY AGE AND SIZE OF URBAN AREA, CANADA 1971[a]

Age	Urban								
	500,000+	100,000-499,999	30,000-99,999	10,000-99,999	5,000-9,999	Less than 5,000	Urban Total	Rural	Total
15-19	42.2	41.9	39.1	36.9	38.0	32.3	39.7	28.7	36.9
20-24	69.3	67.8	65.2	60.8	57.1	54.2	65.8	48.5	62.8
25-34	50.5	46.9	45.0	41.5	39.8	37.2	46.5	36.1	44.5
35-44	47.3	45.9	43.5	42.1	41.2	38.8	45.0	39.4	43.8
45-54	48.4	46.7	42.8	42.8	42.3	40.5	45.9	39.0	44.4
55-64	38.2	36.0	33.5	32.5	33.5	31.2	38.7	29.5	34.3
65+	8.8	8.6	8.5	7.5	7.1	7.0	8.3	7.8	8.2
Total	44.6	43.1	40.4	38.3	36.8	33.8	41.7	32.7	39.9
% of Pop.	34.2	16.2	9.2	8.0	3.8	7.5	78.9	21.1	100

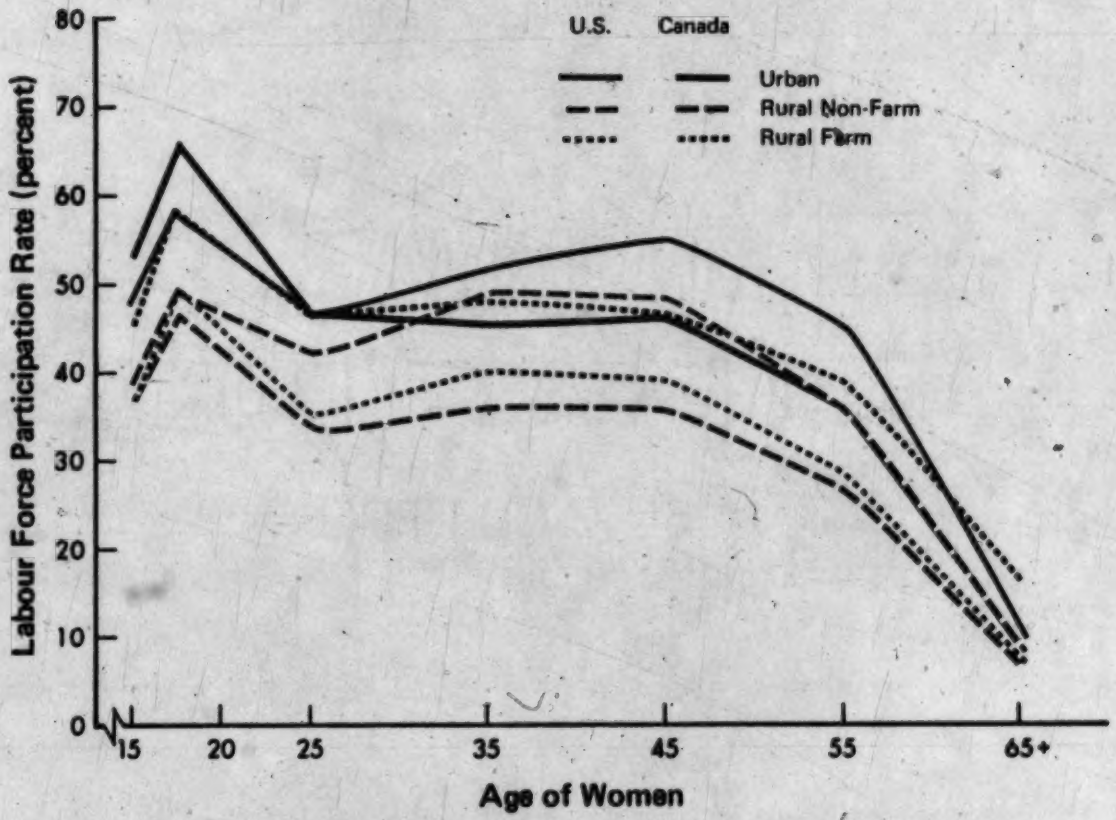
[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-6) pp. 11-3 to 11-5.

is not possible to assess changes over the decade. In terms of the 1971 data a direct relationship between size of urban center and level of activity is evident. This relationship remains consistent at all ages. If one were to include rural areas in this comparison, rural non-farm women would rank after urban centers of less than 5,000, while rural farm women would fall after the 100,000--499,999 urban centers but not consistently with regard to age. Again the availability of employment may be a factor in explaining these differences. The availability of day-care and perhaps more liberal attitudes towards the employment of women, particularly married women, may also account for higher female labour force participation in larger urban areas.

Interesting differences appear when one compares Canadian and American data on female labour force participation and residence (See Chart 4:2). While the second phase of participation is more evident in the United States and the participation rates are higher for urban than rural non-farm women, such is not the case for rural farm women. Rural farm women in Canada are more active at all ages than they are in the United States. American farm women have the lowest participation rates of the three residence groups, which as noted above, is not true in Canada. This may merely reflect a respondent reporting difference but there may be other unknown factors influencing this activity difference.

BIRTHPLACE

One in every five females in Canada is foreign born. Since immigrants settle primarily in the largest urban centers, their



[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity – Work Experience, Vol. III – Part:7 (Bulletin 3.7-6) pp. 11-3 to 11-8.

[b]Source: U.S., Department of Commerce, Bureau of the Census, 1970 Census of Population: United States Summary – Detailed Characteristics, Vol. I, PC(1)-D, pp. 1-682 to 1-686.

[c]16-19 for the United States.

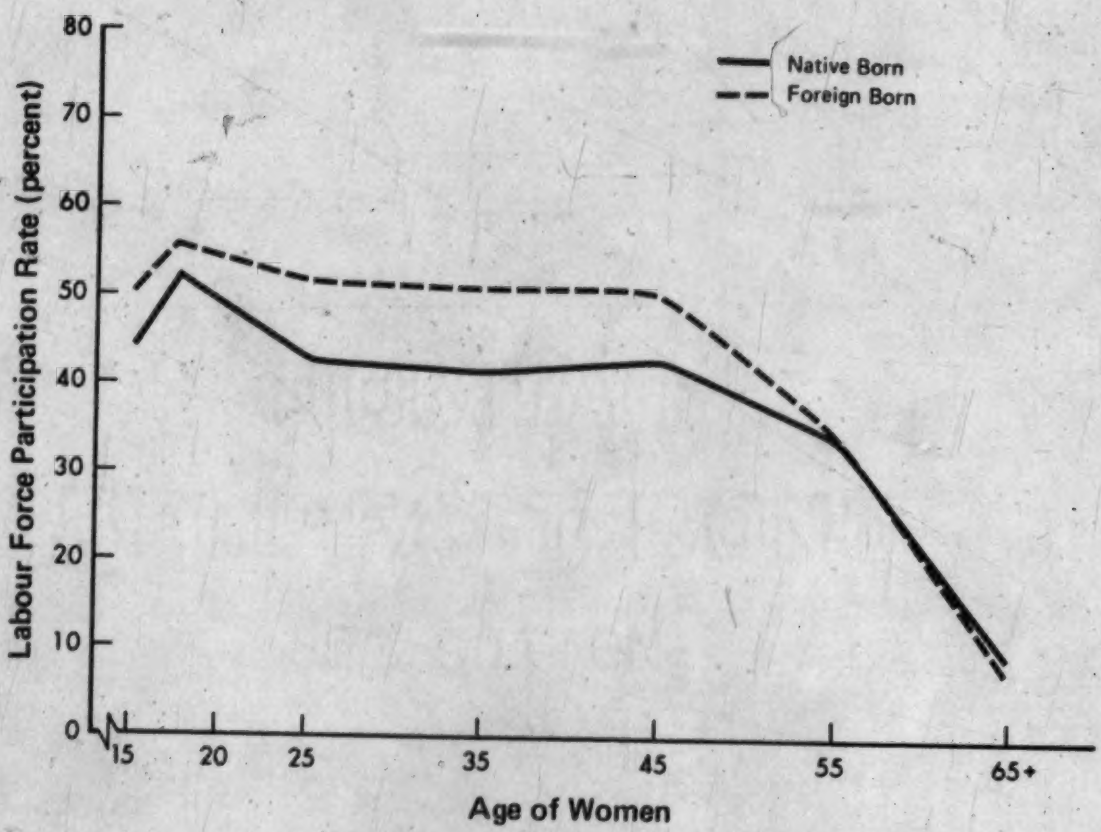
CHART 4:2
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY RESIDENCE, CANADA 1971[a] AND UNITED STATES 1970[b]

influence will be greater there than in rural areas.[4] Chart 4:3 plots the age specific labour force participation rates for native and foreign born females in 1971. Foreign born females between 15-54 have higher participation rates than the native born. Two factors may be related to this difference in participation. First, the family size of immigrants is smaller on the average.[5] Second, immigration carries with it the implication of bettering one's position in life and a second income enhances a family's economic situation. This higher labour force participation on the part of foreign born women would contribute to the higher overall female participation rates in the largest urban centers.

REGION

Because there are considerable regional differences within Canada in industrial growth, employment in agriculture, unemployment, and fertility, to mention a few factors, one would expect also to see differences in terms of female labour force participation.[6] As Table 4:4 shows there are such regional differences in participation for both 1961 and 1971. At both points in time the Maritimes have the lowest rates while Ontario has the highest rates. Over the ten year period the difference between the areas with the highest and the lowest rates increased. This would suggest another dimension in which disparity is increasing.

Table 4:4 also presents figures on percentage increase in labour force participation rates over the period 1961 to 1971. Participation rates rose most rapidly in the Western Provinces (42.8%) and most slowly in Quebec (25.1%). Later sections on education and



[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity – Work Experience, Vol. III – Part 7 (Bulletin 3.7-6) pp. 11-3, 11-4.

CHART 4:3
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY BIRTHPLACE, CANADA 1971[a]

TABLE 4:4

FEMALE LABOUR FORCE PARTICIPATION RATES

FOR REGIONS OF CANADA 1961[a], 1971[b]

	Year		
Region	1961	1971	% Increase[c]
Maritimes	23.7	32.5	37.1
Quebec	27.9	34.9	25.1
Ontario	32.8	44.2	34.8
Prairies	29.7	42.4	42.8
British Columbia	28.3	40.4	42.8
Canada	29.5	39.9	35.3

[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: Labour Force--Historical Tables, Vol. III--Part: 1 (Bulletin 3.1-1) pp. 2-1 to 2-4.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-6) pp. 11-7 to 11-9.

[c]$\%\ \text{Increase} = \frac{\text{1971 Rate} - \text{1961 Rate}}{\text{1961 Rate}} \times 100$

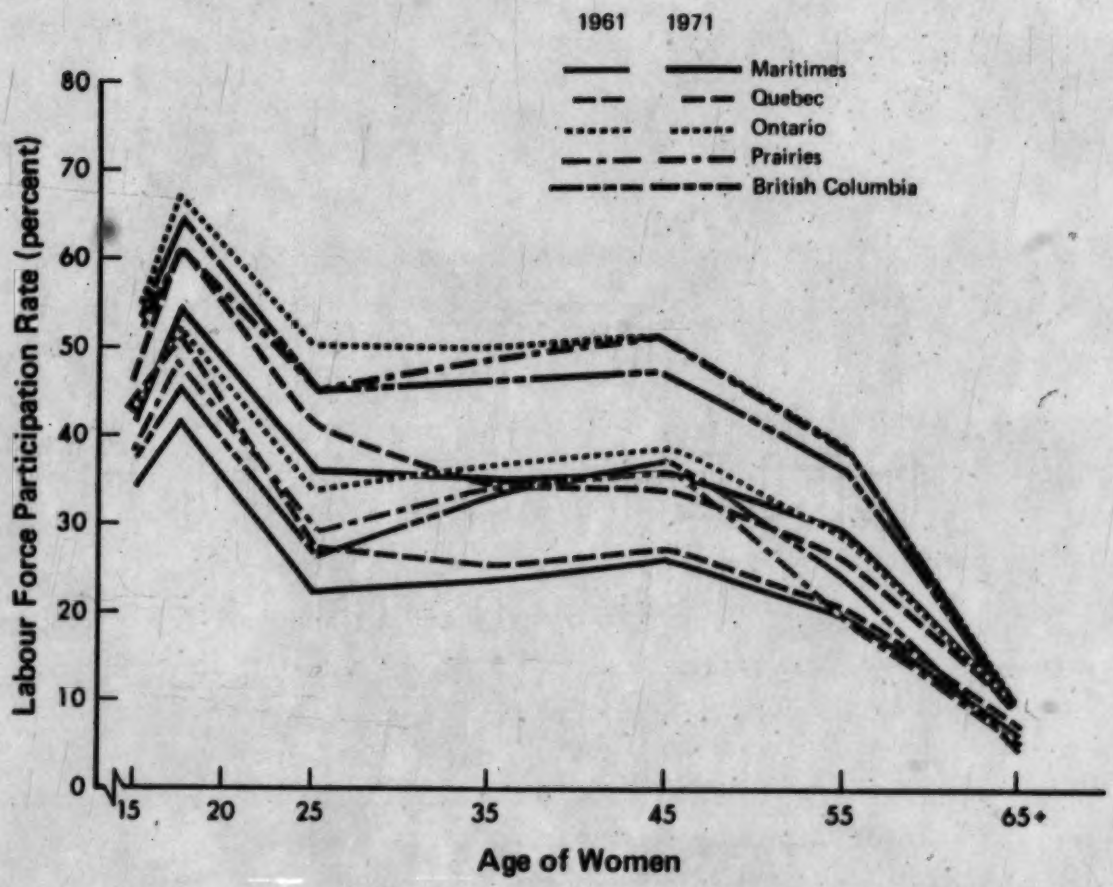
marital status will explore this differential in rate of increase more fully.

Age specific rates are graphed in Chart 4:4 for each region for 1961 and 1971. The widening gap in participation between the Atlantic region and Quebec (lowest rates) and Ontario (highest rates) is visually apparent. One factor in the differentials between regions may be the extent of urbanization in each region. The percent of a region's population that is urban is reported in Table 4:5. Relatively low levels of urban residence may be one factor in the low female labour force participation rates in the Atlantic region for both 1961 and 1971. Such an explanation, however, cannot account for high female labour force participation in the Prairie region where the per cent urban is less than the national figure nor can it account for the low participation in Quebec where the per cent urban is above the national figure.

Also visible in Chart 4:4 is the fact that the participation increases are greatest for the 25-34 age category over the ten year period. It may be the case that the two-phase pattern of particiption does not appear more clearly in 1971 than in 1961 because proportionally more females are remaining in the labour force at that age. It is possible that women 25-34 years of age are not having children; or perhaps, delaying them; or are continuing to work despite the presence of children.

EDUCATION

In analyzing data from the 1961 Census Ostry, Allingham, and Allingham and Spencer all found the level of a female's education to



[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: Labour Force – Historical Tables, Vol. III – Part: 1 (Bulletin 3.1-1) pp. 2-1 to 2-4.

[b]Source: Canada, Statistics Canada, Special Tabulation, 1971 Census of Canada

CHART 4:4
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY REGION OF CANADA 1961[a], 1971[b]

TABLE 4:5

PER CENT OF POPULATION URBAN

FOR REGIONS OF CANADA 1961 and 1971[a]

Region	Year 1961	1971
Atlantic	49.8	55.9
Quebec	74.3	80.6
Ontario	77.3	82.4
Prairies	57.6	67.0
British Columbia	72.6	75.7
Canada	69.7	76.1

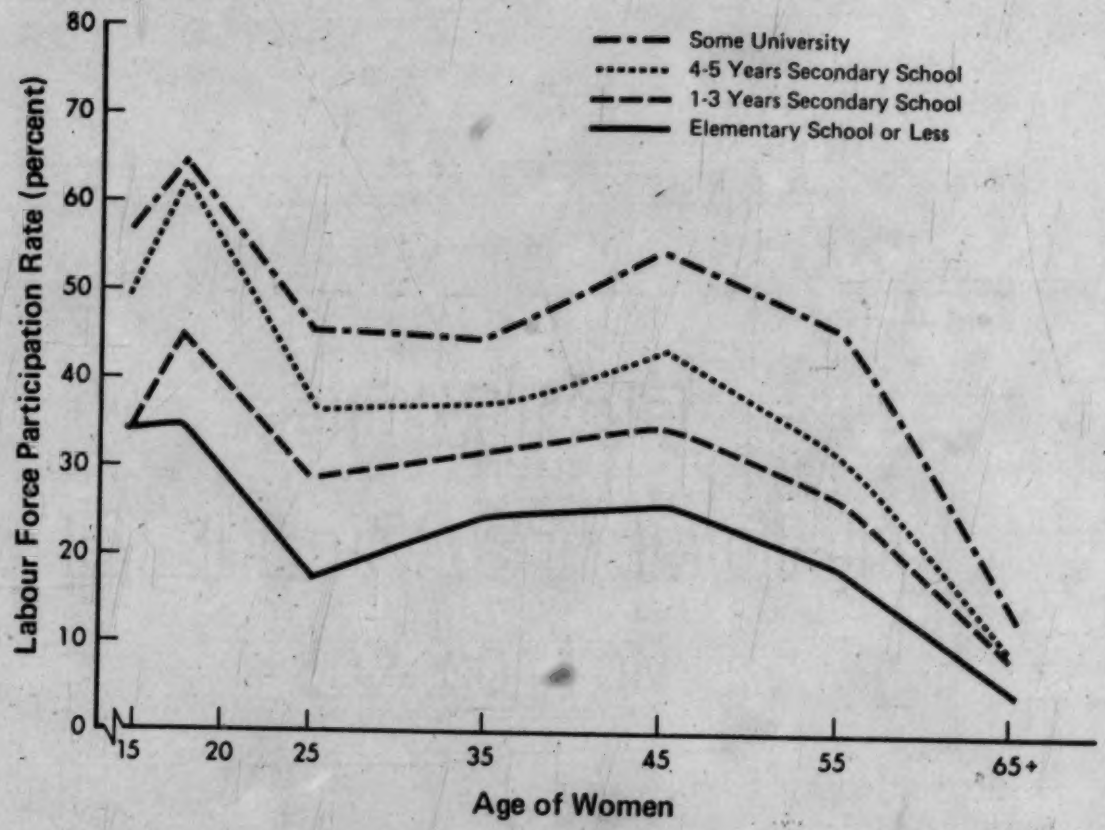
[a]Source: D. Kubat and D. Thornton, A Statistical Profile of Canadian Society (Toronto: McGraw-Hill Ryerson Limited, 1974), pp. 12-14.

be important influence on labour force participation.[7] The pattern of higher levels of labour force participation associated with higher levels of education is evident again in 1971. Participation rates rise from 25.5 for females with elementary or less education, to 39.3 for females with 1-3 years of secondary education, to 53.4 for those with 4-5 years of secondary education, to 62.4 for females with some university. These rates represent the same pattern observed in 1961 but at higher levels. The comparable 1961 rates are 21.5 for elementary or less education, 30.8 for 1-3 years of secondary education, 40.6 for 4 or 5 years of secondary education, and 47.5 for some university. It is important to note that over the decade the participation rates rose more for the higher educational levels than for the lower educational levels. The percentage increase was 18.6% for those with elementary or less education and 31.2% for those with some university.

At the same time the proportion of the adult female population with elementary or less education declined from 41.4% in 1961 to 34.7 in 1971 while the proportion with some university increased from 4.8% in 1961 to 13.2% in 1971. In other words a rise in the crude labour force participation rate could have been expected on the basis of changes in the educational distribution of the population alone.

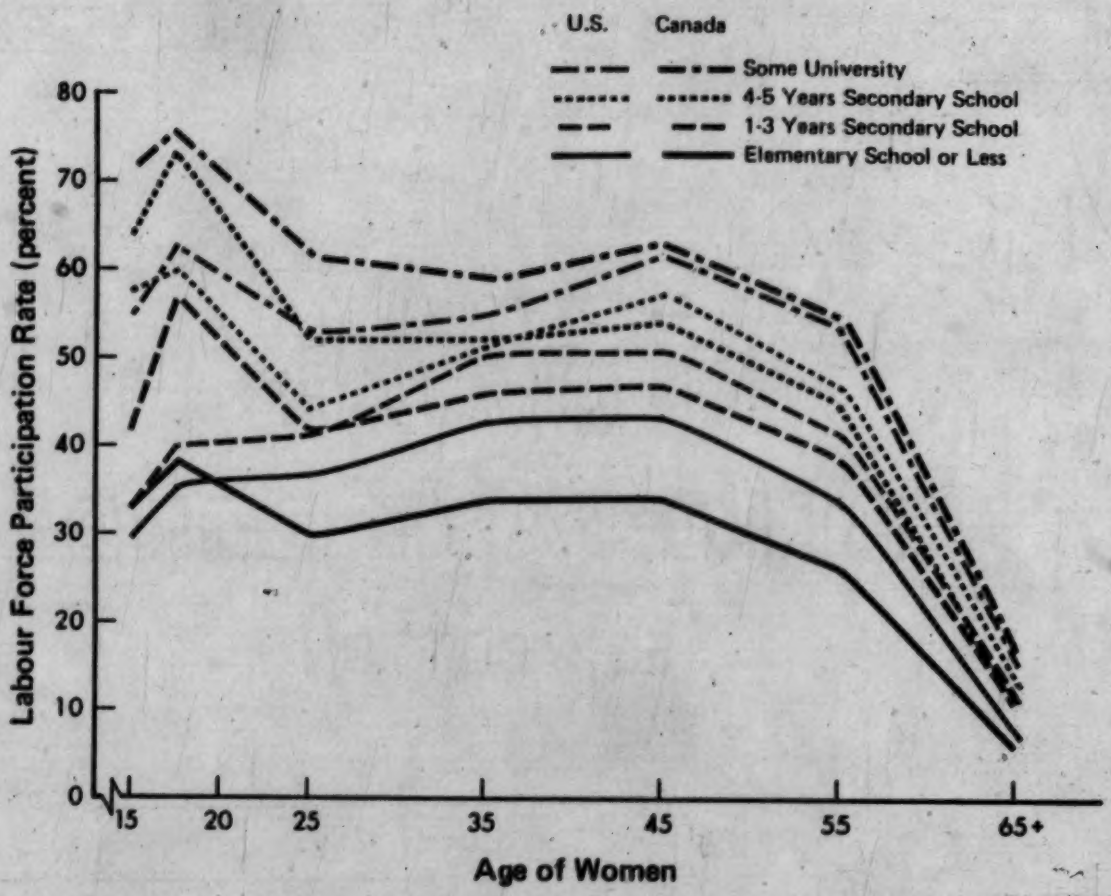
When one examines the relationship between participation and education for different age groups the above observations remain strong. Charts 4:5 and 4:6 graph participation profiles for 1961 and 1971. Participation rates vary directly with educational level at all ages for both periods. Again 1971 rates are higher than 1961 rates.

The greater earning power of more educated women is, no doubt,



[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: Population – Schooling by Age Groups, Vol. I – Part: 3 (Bulletin 1.3-6) pp. 99-1 and 102-1; and 1961 Census of Canada: General Review of the Population and Labour Force, Vol. VII – Part: 1 (Bulletin 7.1-12) pp. 12-98 to 12-99.

CHART 4:5
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY EDUCATION, CANADA 1961[a]



[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity – Work Experience, Vol. III – Part: 7 (Bulletin 3.7-2), p.1-1.

[b]Source: U.S., Department of Commerce, Bureau of the Census, 1970 Census of Population: Employment Status and Work Experience, Vol. II, PC(2)-6A, p. 37.

CHART 4:6
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY EDUCATION, CANADA 1971[a] AND THE UNITED STATES 1970[b]

one factor in their higher participation. As educational levels rise average family size declines, as a consequence children would be less of a constraint for more educated married women.[8] In addition their greater earning power means that they have more resources for use in obtaining adequate mother substitutes for their children.

Women's reasons for working differ with their educational level. Those at lower educational levels are most likely to work out of economic necessity, those at higher educational levels (particularly at advanced post-secondary levels) are more likely to work for reasons of personal achievement, self-fulfillment and satisfaction.[9] These motivational factors have important ramifications for participation. When a women works because of economic need, the removal of that pressure or the existence of cross-pressures such as the presence of small children or difficulties in obtaining child care lead to withdrawal from the labour force. Such is not the case for women who work for personal fulfillment. As indicated above they are also less subject to some of the constraints to working.

The two-phase life cycle of participation is evident both in 1961 and 1971. However, the second phase is less clear in 1971 than 1961 particularly at the two highest levels of education. The flattened curve that can be seen between the ages of 25 and 44 among those with university and 4 or 5 years of secondary education in 1961 appears to become extended to the 45-54 age group, particularly for those with 4 or 5 years of secondary education in 1971. Again this might indicate that these women may be less likely to withdraw from the labour force during their childbearing years. Another possible explanation may be in the tendency for more educated women to delay

childbearing.[10] If this is the case, some more educated women may be returning to work at the same time as others are just beginning to withdraw from the labour force. In other words women in these more educated categories do not withdraw from the labour force simultaneously.

Turning again to U.S. data as a means of elucidating Canadian findings, Chart 4:6 graphs participation rates by age for the four educational levels for both countries. As observed in the earlier discussion of participation and age the second phase of life cycle participation is more pronounced in the United States than in Canada. The first peak, however, is less pronounced in the United States. Indeed, for the two lowest educational levels it is not in evidence. In all cases Canadian participation rates are higher in the first phase while, except for university educated women, the American rates are higher in the second.

Since there are some rather substantial differences between Canada and the United States in the proportions of females in each educational category (see Table 4:6), the Canadian data were standardized on the United States age and educational distribution. Canadian age-education specific participation rates were then applied and age specific rates for the Canadian female population were calculated. In standardizing in this fashion it is possible to see whether the differences between the U.S. and Canada are a product of different age-education distributions or the product of different patterns of participation. Chart 4:7 shows the actual participation profiles for the United States and Canada as well as the profile based on the standardized population. It appears from this that

Legend:
S.P.F.—Standardized Population Frequency
1971 P.R.—1971 Participation Rate
S.L.F.F.—Standardized Labour Force Frequency
S.P.R.—Standardized Participation Rate

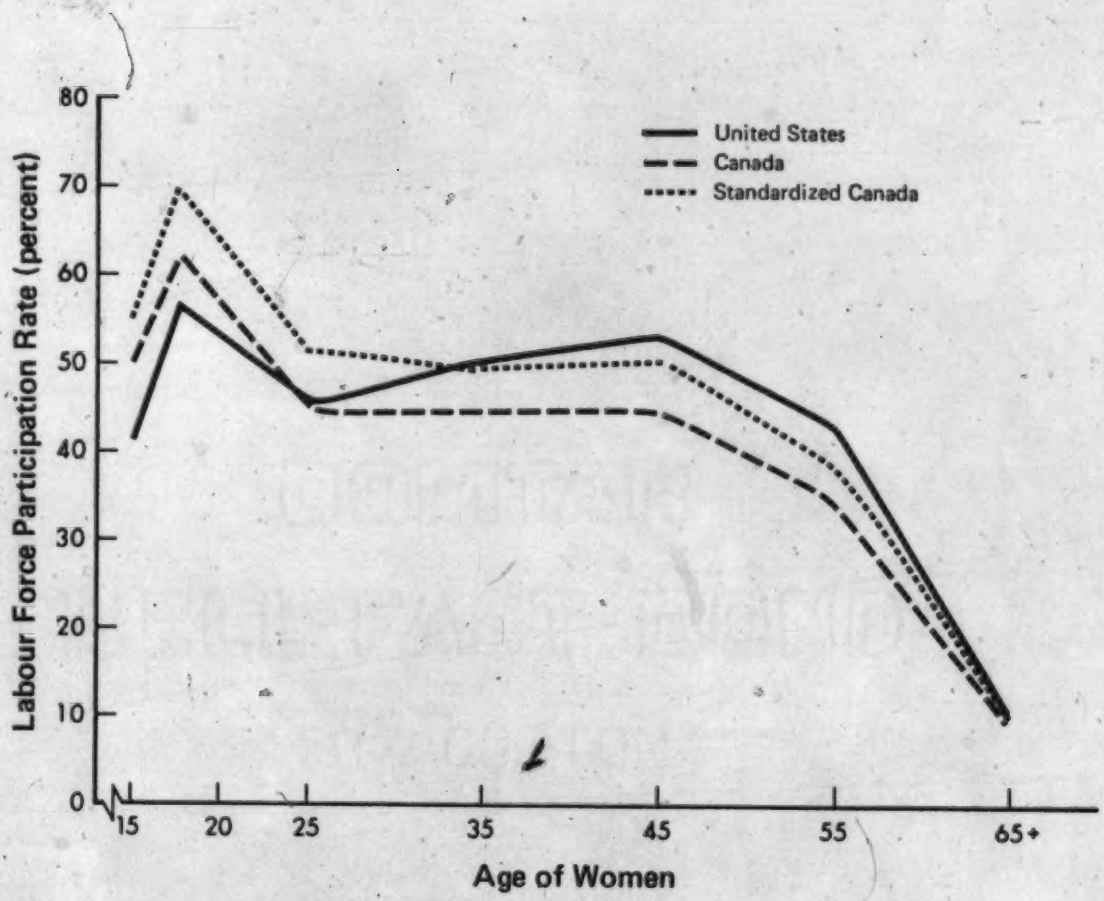
TABLE 4:6

CANADIAN POPULATION STANDARDIZED BY 1970 UNITED STATES[a] AGE, AND EDUCATION DISTRIBUTION AND 1971 CANADIAN[b] PARTICIPATION RATES

Age	EDUCATION														
	Elementary			1-3 Years Secondary			4-5 Years Secondary			Some University			Total		
	S.P.F.	1971 P.R.	S.L.F.F.	S.P.F.	1971 P.R.	S.L.F.F.	S.P.F.	1971 P.R.	S.L.F.F.	S.P.F.	1971 P.R.	S.L.F.F.		S.P.F.	
15-19	50,407	27.6	13,912	463,608	29.0	134,466	205,377	54.8	112,547	55,130	67.3	37,115	774,542	38.5	298,020
20-24	51,937	38.0	19,736	129,804	55.1	71,522	385,358	73.3	282,467	298,083	75.6	225,351	865,182	69.2	599,076
25-34	126,286	30.0	37,886	252,212	42.0	105,929	599,531	52.4	314,154	335,104	62.3	208,770	1,313,133	50.8	666,739
35-44	188,778	34.0	64,185	270,699	45.8	123,980	524,341	51.5	270,036	244,616	58.5	143,100	1,228,434	48.9	601,301
45-54	281,714	34.2	96,346	276,895	47.4	131,248	473,705	54.4	257,696	210,272	63.2	132,892	1,242,586	49.7	618,182
55-64	374,573	25.9	97,014	218,992	38.8	84,969	260,296	45.0	117,133	163,842	55.3	90,605	1,017,703	38.3	389,721
65+	668,143	6.3	42,093	192,909	10.3	19,870	196,880	11.0	21,624	149,845	17.2	25,773	1,207,477	9.1	109,360
Total													7,649,057	42.9	3,282,399

[a]Source: U.S., Department of Commerce, Bureau of the Census, 1970 Census of Population: Employment Status and Work Experience, Vol. II, PC(2)-4A, p. 37.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity—Work Experience, Vol. III—Part: 7 (Bulletin 3.7-a) p. 1-1.



[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity – Work Experience, Vol. III – Part: 7 (Bulletin 3.7-2), p.1-1.

[b]Source: U.S., Department of Commerce, Bureau of the Census, 1970 Census of Population: Employment Status and Work Experience, Vol. II, PC(2)-6A, p.37.

CHART 4:7
FEMALE LABOUR FORCE PARTICIPATION PROFILE FOR CANADA 1971[a], THE UNITED STATES 1970[b] AND CANADA STANDARIZED ON U.S. AGE AND EDUCATION

United States-Canada differences are the consequence of both difference in the age-education distribution and participation patterns. If Canada had the same age education distribution for females 15 and over as the United States its overall participation rate would rise from 39.9 to 42.9 but the differences in the shape of the curve between the United States and the standardized Canadian population would remain the same as between the United States and the actual Canadian curves.

MARITAL STATUS

Marital status exerts a strong and direct influence on labour force participation.[11] Table 4:7 details this relationship for 1961. Participation rates at each age are consistently lowest for married women, intermediate for widowed and divorced women, and highest for single women. The influence of the need to provide economically for one's self and for one's children is evident in this relationship with that need being greatest for single women and least for married women. This pressure is reinforced by the constraints of child care responsibilities and marital role prescriptions that also serve to depress the rates of married females and to some extent the rates of widowed and divorced females. Examination of the age-marital status specific rates for 1971 reveals the same relationship between marital status and labour force participation observed in 1961 (see Table 4:7).

If one were to examine the relationship between marital status and participation without regard to age, the above relationship would be obscured, particularly in 1971. For that year, 53.4% of

TABLE 4:7

FEMALE PARTICIPATION RATES BY MARITAL STATUS FOR CANADA 1961[a] and 1971[b]

Age	Marital Status							
	Single		Married		Widowed and Divorced		Total	
	1961	1971	1961	1971	1691	1971	1961	1971
15-19	35.1	36.9	24.5	37.5	46.2	41.2	34.2	37.0
20-24	81.6	78.9	27.4	50.3	61.3	65.4	49.5	62.8
25-34	81.0	80.1	21.4	38.7	60.9	64.6	29.6	44.5
35-44	77.6	75.3	25.2	40.4	60.4	62.9	31.0	43.9
45-54	72.8	71.3	26.4	40.4	55.4	59.7	33.4	44.4
55-64	60.7	61.1	16.1	28.5	34.2	42.1	24.4	34.4
65+	22.2	20.8	3.8	6.9	6.0	6.5	6.7	8.3
Total	54.9	53.4	22.0	36.9	23.0	26.5	29.7	39.9

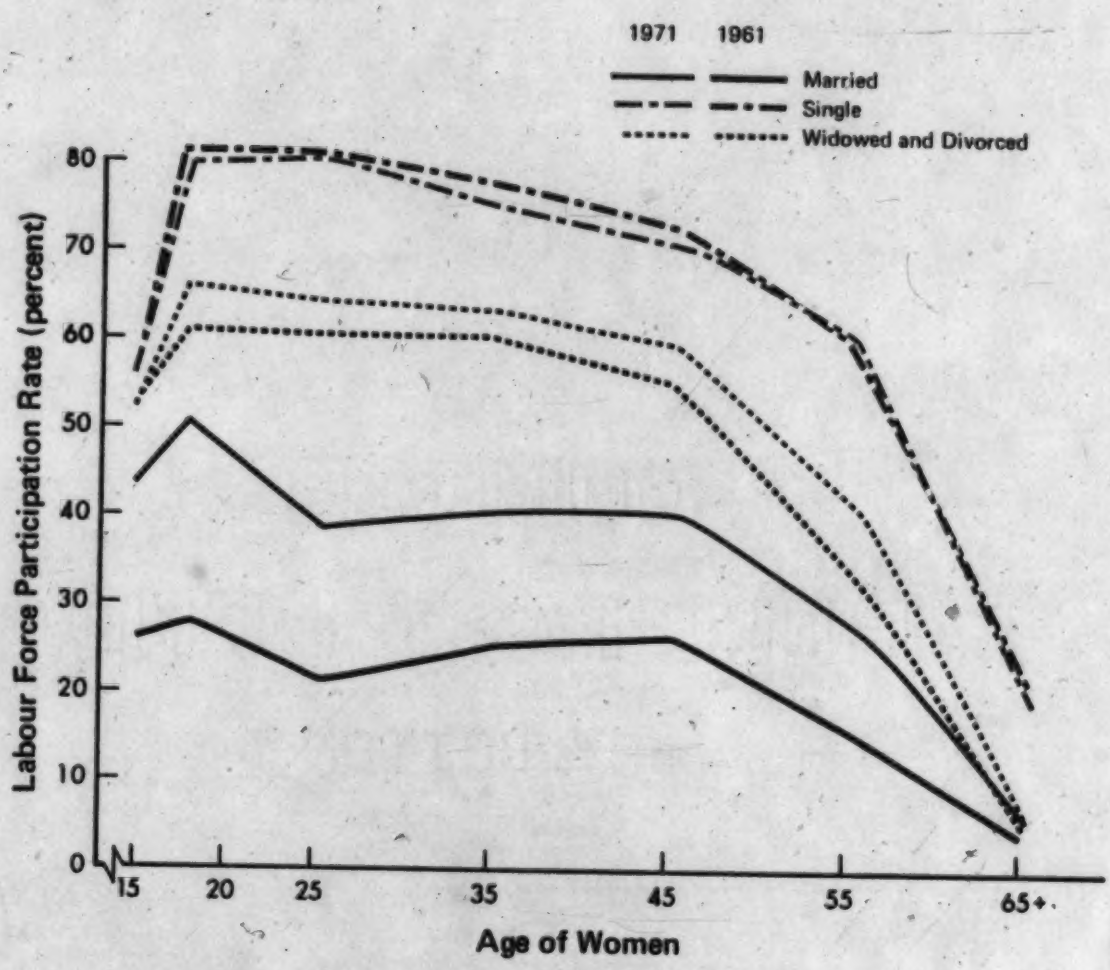
[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: General Review--The Canadian Labour Force, Vol. VII--Part: 1 (Bulletin 7.1-12) p. 12-36.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-3) pp. 14-1, 14-2; and 1971 Census of Canada: Advance Bulletin (AE-1) p. 2.

single females were in the labour force (54.9% in 1961), 36.9% of married females were in the labour force (22.0% in 1961), while only 26.5% of widowed and divorced females were in the labour force (23.0% in 1961). This anomaly is the product of the high proportion of widowed and divorced women in the oldest age group (56.5% in 1971) who have the lowest participation rate (6.5% in 1971). A similar observation can be made in regards to the 1961 data.

Chart 4:8 graphs the 1961 and 1971 participation profiles of Canadian women by their marital status. While the shapes of the curves remain similar for the two points in time, the rates for single women drop slightly between the ages of 20-24 to 45-54, they rise for widowed and divorced women between the ages of 20-24 to 55-64, and they rise markedly for married women at all ages except 65 and over. This observation is particularly significant because married women constitute the largest proportion of adult females and the impact of changes in this segment on the total female population are substantial.

Table 4:8 demonstrates that married women accounted for all of the increase in the female labour force between 1961 and 1971 in Canada. Married women made up 46.6% of the female labour force in 1961. By 1971 they constituted 59.1% of the female labour force. While married females share of the labour force increased, their proportion of the total female population 15 and over declined. Conversely while the proportion of single, and widowed and divorced women in the total adult female population increased, their share in the female labour force declined.



[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: General Review – The Canadian Labour Force, Vol. VII – Part: 1 (Bulletin 7.1-12) p. 12-36.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Forces Activity – Work Experience, Vol. III – Part: 7 (Bulletin 3.7-3) p. 6-1 and Advance Bulletin (AE-3) p. 5.

CHART 4:8
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY MARITAL STATUS, CANADA 1961[a] AND 1971[b]

TABLE 4:8

PER CENT OF POPULATION AND LABOUR FORCE BY MARITAL STATUS FOR CANADA 1961[a] and 1971[b]

AND THE UNITED STATES 1960 and 1970[c]

CANADA

	1961				1971			
	Population 15 & over[d]	%	Labour Force	%	Population 15 & over[d]	%	Labour Force	%
Single	1,379,733	23.0	757,023	42.5	1,905,805	24.9	1,018,815	33.4
Married	4,004,579	66.8	883,082	49.6	4,875,950	63.8	1,803,870	59.1
(Married Husband Present)					(4,600,620)[e]	(60.2)[e]	(1,669,580)[e]	(54.7)[e]
Widowed & Divorced	609,211	10.2	140,480	7.9	867,285	11.3	230,410	7.5
(Widowed, Divorced & Husband Absent)					(1,042,610)[e]	(14.9)[e]	(364,700)[e]	(13.9)[e]
Total	5,993,523	100.0	1,780,585	100.0	7,649,040	100.0	3,053,095	100.0

UNITED STATES

	1960				1970			
Single	12,272,021	19.0	5,252,623	23.6	17,624,105	22.6	7,219,207	23.3
Married	40,134,904	62.1	12,291,557	55.1	44,481,843	57.1	17,590,007	56.6
Widowed, Divorced and Husband Absent	12,252,153	18.9	4,742,243	21.3	15,804,146	20.3	6,243,734	20.1
Total	64,659,078	100.0	22,296,423	100.0	77,910,094	100.0	31,052,948	100.0

[a]Source: Canada, Dominion Bureau of Statistics, 1961 Census of Canada: General Review--The Canadian Labour Force, Vol. VII--Part: 1 (Bulletin 7.1-12) p. 12-36

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-3) pp. 14-1, 14-2; and (Bulletin 3.7-4) p. 8-3.

[c]Source: U.S., Department of Commerce, Bureau of the Census, 1970 Census of Population: Employment Status and Work Experience, Vol. II, Pc(2)-6A, p. 68.

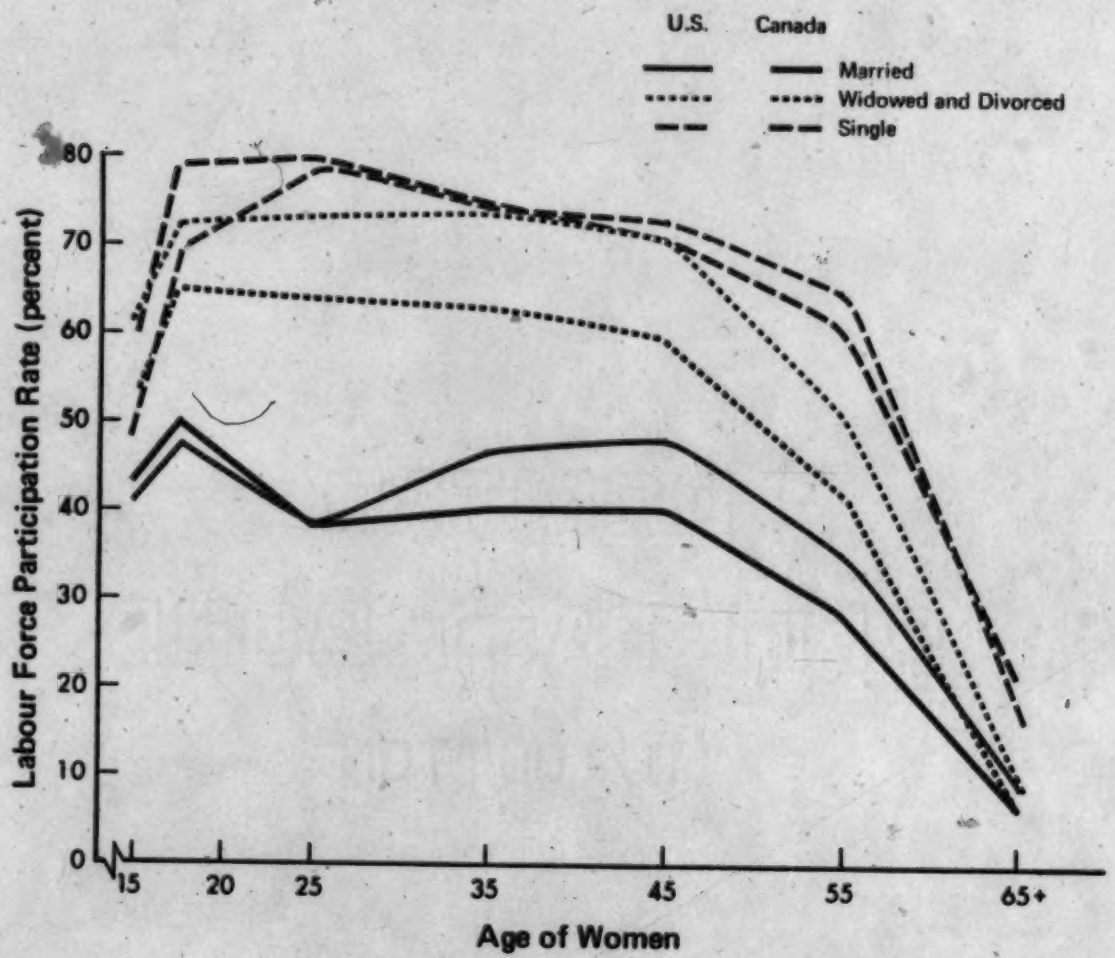
[d]14 years and over for the United States.

[e]Bracketed figures represent Canadian categories comparable to American ones.

When 1971 Canadian data are made comparable to 1970 American data clear differences emerge. Not only are there proportionately more divorced females in the United States population but also the proportion of each marital status category in the labour force corresponds closely to their representation in the population. The 1971 Canadian pattern is more similar to the United States pattern in 1960 than in 1970.

It is also evident from Chart 4:8 that the two-phase life cycle pattern of participation, to the extent that it exists, is a pattern characteristic of married women only. It would seem then that the appearance of such a pattern in the earlier charts for education, residence and region reflect the strong influence of married women on the female population as a whole.

Looking once more at 1970 American data for comparative purposes some interesting differences are visible (see Chart 4:9). In the case of single women the shapes of the curves are similar as are the rates, though single Canadian females have a higher rate at 20-24 and slightly lower rates at 45-54 to 55-64. Larger differences appear between widowed and divorced females in the two countries with American rates at a consistently higher level (up to ten percentage points or approximately 20% higher). Finally, in the case of married women we see once again the differences in the two-phase pattern of participation. The Canadian graph is slightly higher in its first peak at age 20-24, the American higher in its second peak or hump at ages 35-44 to 55-64. In the light of these differences between Canadian and American women it is surprising that the crude



[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity – Work Experience, Vol. III – Part: 7 (Bulletin 3.7-3) pp. 14-1, 14-2.

[b]Source: U.S. Department of Commerce, Bureau of the Census, 1970 Census of Poupulation: Employment Status and Work Experience, Vol. II, PC(2)-6A, p. 37.

CHART 4:9
FEMALE LABOUR FORCE PARTICIPATION PROFILE BY MARITAL STATUS FOR CANADA 1971[a] AND THE UNITED STATES 1970[b]

labour force participation rates are the same, one would expect that the American rates would be higher.

MARRIED FEMALES

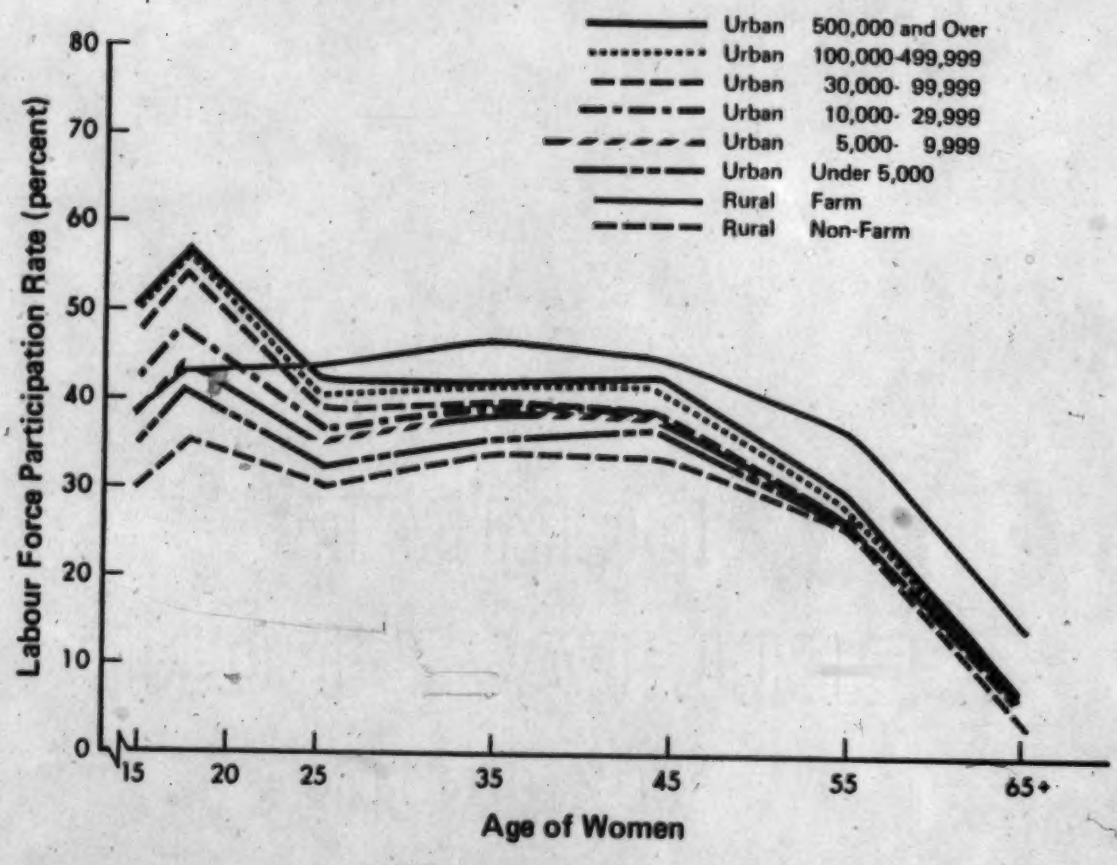
Because the labour force participation of married women is so important a factor in the overall participation of women, and because the two-phase pattern of participation is evident only for married women, the remainder of this chapter will focus on this specific group.

Residence

Chart 4:10 plots the participation rates of married females by residence. As was observed earlier higher rates are directly associated with size of urban centre. The observation that rural farm women do not fit this general ordering is clearer when one looks only at married women. Rural farm women's participation rates are the highest during the child bearing and rearing years and there is no evidence of a two-phase pattern of participation. Actually, the first peak is absent. The second hump in the participation profile is not in evidence in the largest urban centres either, where a plateau exists between the ages of 25-34 and 45-54. On the whole, the residential profiles of married women are not very different, though the rates are lower, from the profiles of all adult women.

Region

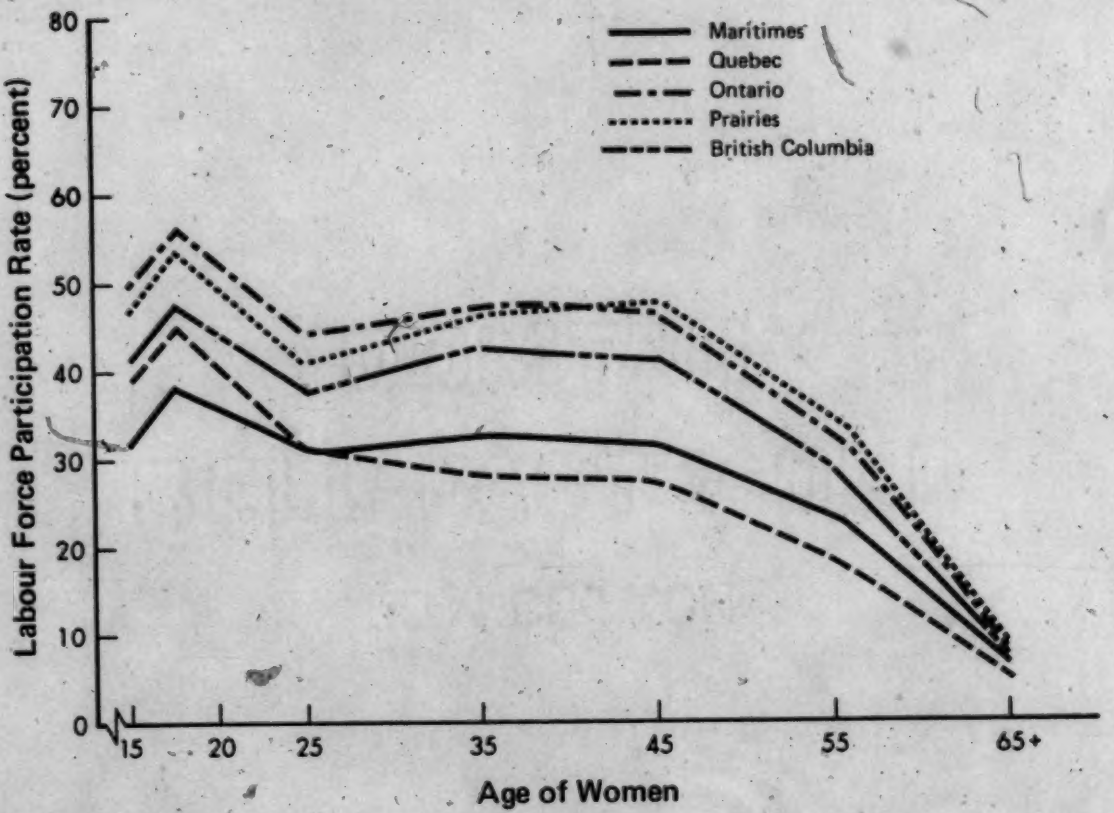
The relationship between married female participation and region is examined in Chart 4:11. Comparing Chart 4:11 and Chart 4:4 one sees again that though the participation rates are lower for married women than for all adult females, the ordering of regions



[a]Includes females whose husbands are absent.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity – Work Experience, Vol. III – Part: 7 (Bulletin 3.7-3) pp. 6-3 to 6-11.

CHART 4:10
LABOUR FORCE PARTICIPATION PROFILE OF MARRIED[a] FEMALES BY RESIDENCE, CANADA 1971[b]



[a]Includes only women whose husbands are present.

[b]Source: Canada, Statistics Canada, Special Tabulation 1971, Census of Canada.

CHART 4:11
LABOUR FORCE PARTICIPATION PROFILE OF MARRIED[a] FEMALES BY REGION OF CANADA 1971[b]

remains the same, with Ontario highest and the Atlantic region lowest in the first phase and Quebec lowest in the second phase. It was observed earlier that the two-phase pattern of participation is more in evidence in the Western Provinces than elsewhere. It is even more visible when one looks only at married women rather than all adult women.

The participation in Quebec is interesting because on the basis of changes in the birth rate one would not expect it to be so low. Table 4:9 shows Atlantic Canada with the highest general fertility rates which would partially account for the low participation rates of married females in that region. Quebec, on the other hand, has the lowest general fertility rate in Canada. This low fertility rate in Quebec is in part due to the large number of single females in Quebec--30.6% of all adult females in Quebec are single, compared to 24.9% in Canada (see Table 4:10). The relatively large proportion of single women in Quebec makes the low participation rates of all females even more surprising.

Not only do the rates of married women differ by region but regional variations are also evident for single, and widowed and divorced women (see Table 4:11). Both the Maritimes and Quebec have considerably lower age-marital specific labour force participation rates than the other regions. This being the case, it would seem reasonable to think that other factors related to regional variations are operative.

One such factor is different regional educational distributions. The percentage of the female population at different educational

TABLE 4:9

GENERAL FERTILITY RATES[a] FOR CANADA

AND THE PROVINCES 1961, 1971[b]

	General Fertility Rate	
	1961	1971
Canada	111.5	67.7
Newfoundland[c]		
Prince Edward Island	134.6	88.0
Nova Scotia	118.7	78.0
New Brunswick	129.1	83.2
Quebec	108.6	57.8
Ontario	108.3	68.4
Manitoba	111.4	78.0
Saskatchewan	119.3	78.5
Alberta	127.8	77.4
British Columbia	104.1	67.0

[a]General Fertility Rate--number of births per 1000 females aged 15-49

[b]Source: Canada, Statistics Canada, Health and Welfare Division, Vital Statistics: Births 1971, Vol. 1.

[c]Figures are not available for Newfoundland though one would expect them to be high since this is the Province with the highest crude birth rate.

TABLE 4:10

PER CENT OF FEMALE POPULATION BY MARITAL STATUS

Region	Marital Status			Total
	Single	Married	Widowed and Divorced	
Atlantic	25.9	62.0	12.1	100.0
Quebec	30.6	60.1	9.3	100.0
Ontario	22.9	64.5	12.6	100.0
Prairie	22.4	65.6	12.0	100.0
British Columbia	21.4	64.1	14.5	100.0
Total	24.9	63.8	11.3	100.0

[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-3) pp. 6-1 to 6-39.

TABLE 4:11

FEMALE PARTICIPATION RATES BY AGE, MARITAL STATUS AND REGION OF CANADA 1971[a]

	Atlantic Provinces			Quebec			Ontario			Prairies			British Columbia		
Age	Single	Married	Widowed and Divorced	Single	Married	Widowed and Divorced	Single	Married	Widowed and Divorced	Single	Married	Widowed and Divorced	Single	Married	Widowed & Divorced
15-19	29.8	25.9	)	32.5	33.1	)	40.3	42.9	)	39.1	39.3	)	42.9	34.7	)
			) 55.6			) 55.1			) 58.4			) 64.2			) 64.2
20-24	75.5	38.7	)	75.3	45.3	)	82.1	56.0	)	81.1	52.9	)	81.9	47.7	)
25-34	68.0	31.3	54.8	76.7	31.8	58.0	88.3	45.0	67.8	80.0	40.5	65.2	83.3	38.9	68.5
35-44	66.8	32.3	49.8	72.2	28.9	49.1	81.9	47.5	69.9	74.5	46.8	67.0	79.5	42.8	70.9
45-54	64.0	32.2	46.7	67.1	27.9	44.9	77.8	47.3	67.3	73.8	47.5	66.7	75.2	42.7	67.7
55-64	55.2	24.3	37.3	56.1	19.2	28.6	67.6	33.0	48.3	64.1	34.4	47.7	64.1	29.7	49.0
65+	17.9	6.0	6.0	29.0	5.0	5.3	15.9	8.0	7.3	20.0	8.0	7.1	11.4	6.4	6.1
Total	45.2	29.4	20.9	52.2	28.3	20.8	56.2	42.9	29.1	53.5	41.2	28.7	56.6	37.3	30.3

[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-3) pp. 6-11 to 6-39.

levels for each region of Canada is given in Table 4:12. Quebec with 42.7% of its adult females having elementary or less education has the most poorly educated candidates for the labour force. The Maritimes are only slightly better off. Since education is strongly related to female labour force participation the low rates in Quebec and the Atlantic provinces are not surprising. On the basis of British Columbia's favorable educational picture one would have expected higher labour force participation rates there. Perhaps the favour enjoyed by British Columbia as a retirement centre and its consequent slightly older population account for this anomaly. It should be noted that British Columbia, Quebec and the Maritimes had the highest female and male unemployment rates in Canada in 1971.[12] Some part of these regional variations may be related to the discouraged worker effect.

To return to the focus of this section--married women--regional differences in labour force participation may be related to family size. Low labour force participation by women in the Atlantic and Quebec regions may be related to the number of children per family. Table 4:13 shows this to be the case, however, the differences are not extremely large. The effects of children on participation will be further explored later in this chapter.

Education

The overall relationship between education and female labour force participation seen in Chart 4:6 is not altered greatly when one examines it for married women only (see Chart 4:12). Rates of participation for married women are of course lower than those of the

TABLE 4:12

PERCENT OF FEMALE POPULATION BY EDUCATIONAL LEVEL

BY REGION OF CANADA 1971[a]

Education	Region				
	Atlantic	Quebec	Ontario	Prairies	British Columbia
Elementary or Less	34.3	42.7	28.5	27.8	21.9
1-3 Years Secondary	45.8	37.6	35.3	39.0	36.3
4 or 5 Years Secondary	11.9	12.5	27.8	23.3	30.9
Some University	8.0	7.1	8.4	9.8	10.9
Total	100.0	99.9	100.0	99.9	100.0

[a]Source: Canada, Statistics Canada, 1971 Census of Population: Labour Force Activity--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-2) pp. 1-3 to pp. 1-22.

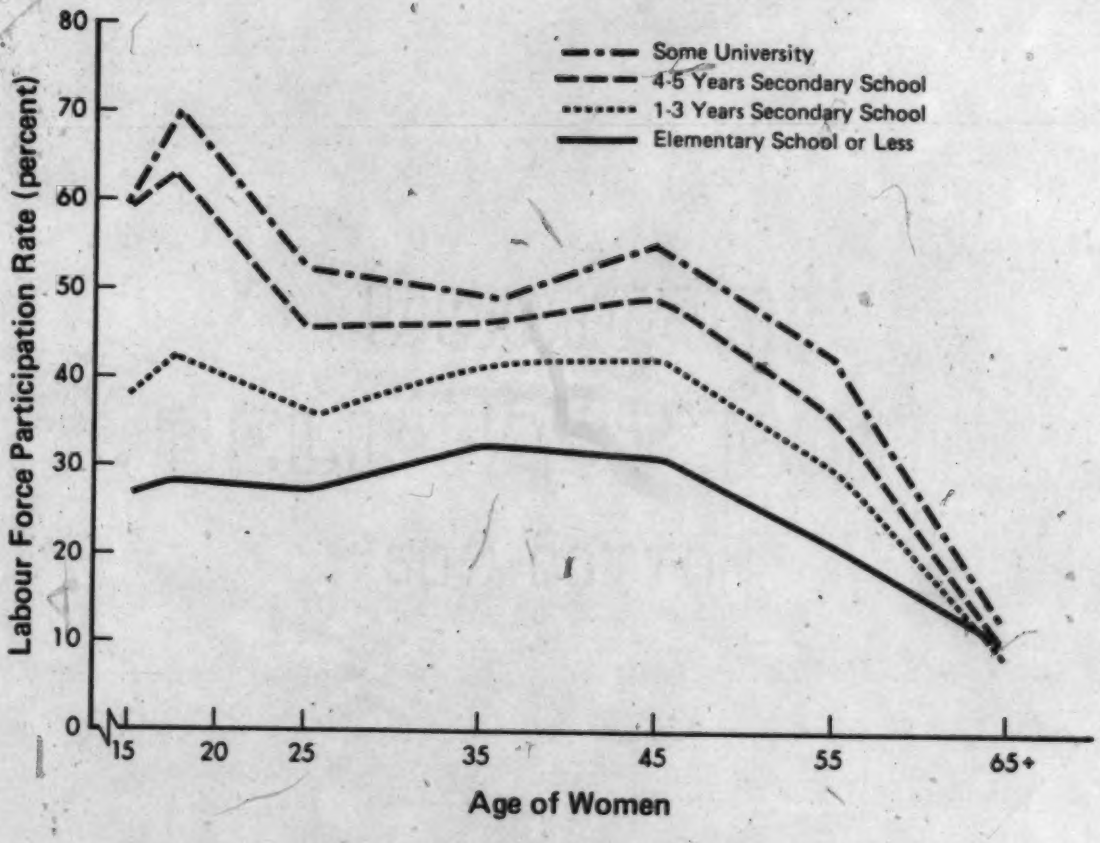
TABLE 4:13

AVERAGE NUMBER OF CHILDREN IN HUSBAND-WIFE FAMILIES

FOR CANADA AND REGIONS OF CANADA 1971[a]

Region	Average Number of Children
Atlantic	2.0
Quebec	1.9
Ontario	1.6
Prairie	1.7
British Columbia	1.5
Canada	1.7

[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Families--Families by Labour Force Activity of Family Members, Vol. II--Part: 2 (Bulletin 2.2-11) pp. 78-1 to 78-12.



[a]Includes only women whose husbands are present.

[b]Canada, Statistics Canada, Special Tabulation 1971, Census of Canada.

CHART 4:12
LABOUR FORCE PARTICIPATION PROFILE OF MARRIED FEMALES BY EDUCATION, CANADA 1971[b]

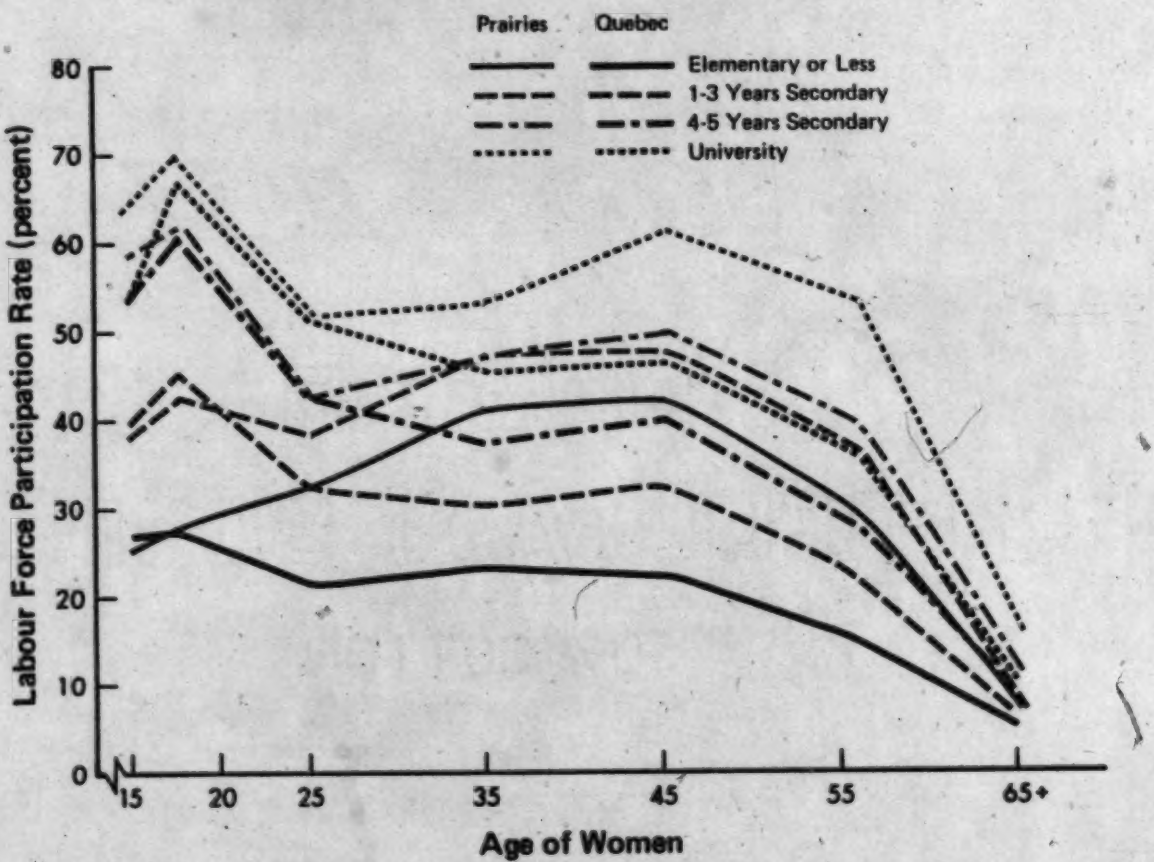
total adult female population at all educational levels. As well, the extent of the differences between various educational levels is compressed for married women. Finally, the second phase of participation becomes clearer when one examines married women alone.

In order to explore in more detail the relationship between education, region and participation, participation profiles for Quebec and the Prairie regions for married females by education are graphed in Chart 4:13. These two regions represent two quite different pictures both in terms of education and participation. In terms of family size, however, they are not the extreme cases. The outcome of this is a very interesting, perhaps even dramatic, picture of regional differences, with participation rates considerably higher in the prairie region at all educational levels but particularly at the lowest and highest levels.

Although the sources of these regional differences remain somewhat enigmatic; there can be little doubt that the effects of low labour force participation by Quebec women, whatever their marital status, suppress the rates for Canada. Moreover, the low participation rates of married women in Quebec, particularly in the 35-54 age range are in some measure related to the failure of the second hump of participation to appear clearly in Canada in 1971.

Child Status

The effects of family size discussed briefly above require some elaboration. There is a good deal of evidence in the literature that not only the number of children one has but also their age affects labour force participation.[13] The effects of the age of



[a]Includes only women whose husbands are present.

[b]Source: Canada, Statistics Canada, Special Tabulation, 1971 Census of Canada.

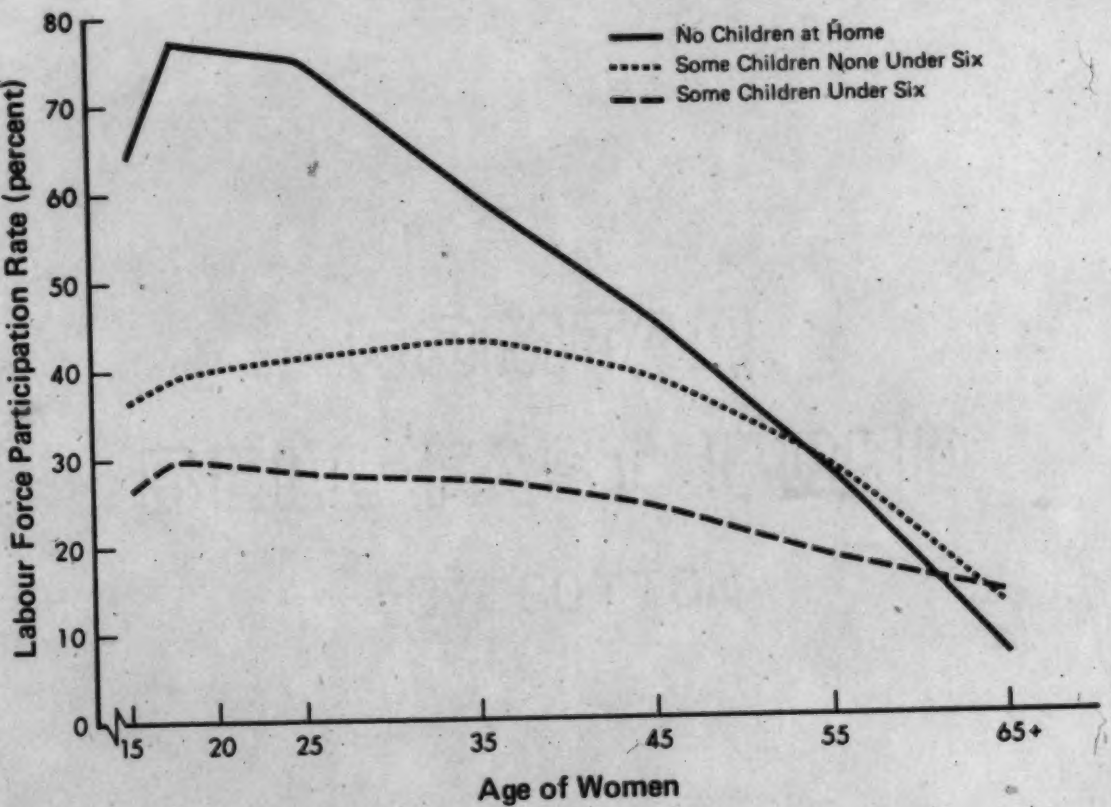
CHART 4:13
LABOUR FORCE PARTICIPATION PROFILE OF MARRIED[a] FEMALES BY REGION AND EDUCATION, QUEBEC AND THE PRAIRIES 1971[b]

one's children are seen in Chart 4:14. Controlling for age of children results in the disappearance of the two-phase pattern of participation. There appear instead three distinct patterns depending on whether there are young children, older children, or no children. The rates are, of course, highest for those without children and lowest for those with children under six.

Chart 4:15 develops this picture in greater detail by taking into account both age and number of children. Labour force participation of married females can be seen to increase as the age of children increases and the number decreases.

Exploring further the interrelationships between some of the variables under consideration Chart 4:16 shows participation profiles for women with and without children and at different levels of education. In the first half of the age span, when those who have children have young children, even those women with the lowest level of education but no children participate at higher levels than those women at the highest level of education but with children. These differences are attenuated in the second half of the age span when women with children have older children who require less maternal care and have needs that may require extra family income. At the same time, even childless women withdraw from the labour force because of other factors such as rising income of husband and societal role expectations.

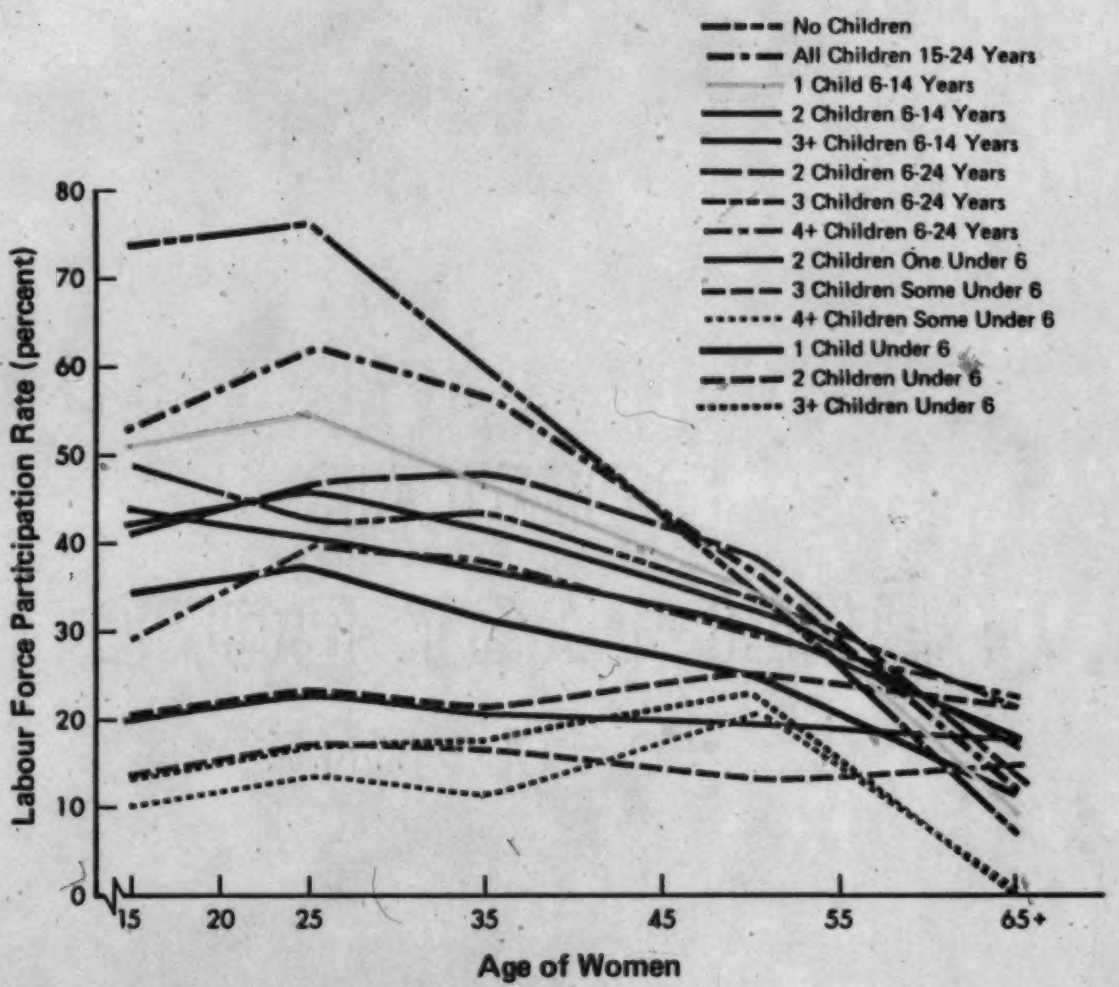
This chart also suggests that the first peak in the participation profile of married females is the product of high participation rates among childless females, whereas, the second peak or hump is



[a]Includes only women whose husbands are present.

[b]Source: Canada, Statistics Canada, Special Tabulation, 1971 Census of Canada.

CHART 4:14
LABOUR FORCE PARTICIPATION PROFILE OF MARRIED[a] FEMALES BY CHILD STATUS, CANADA 1971[b]

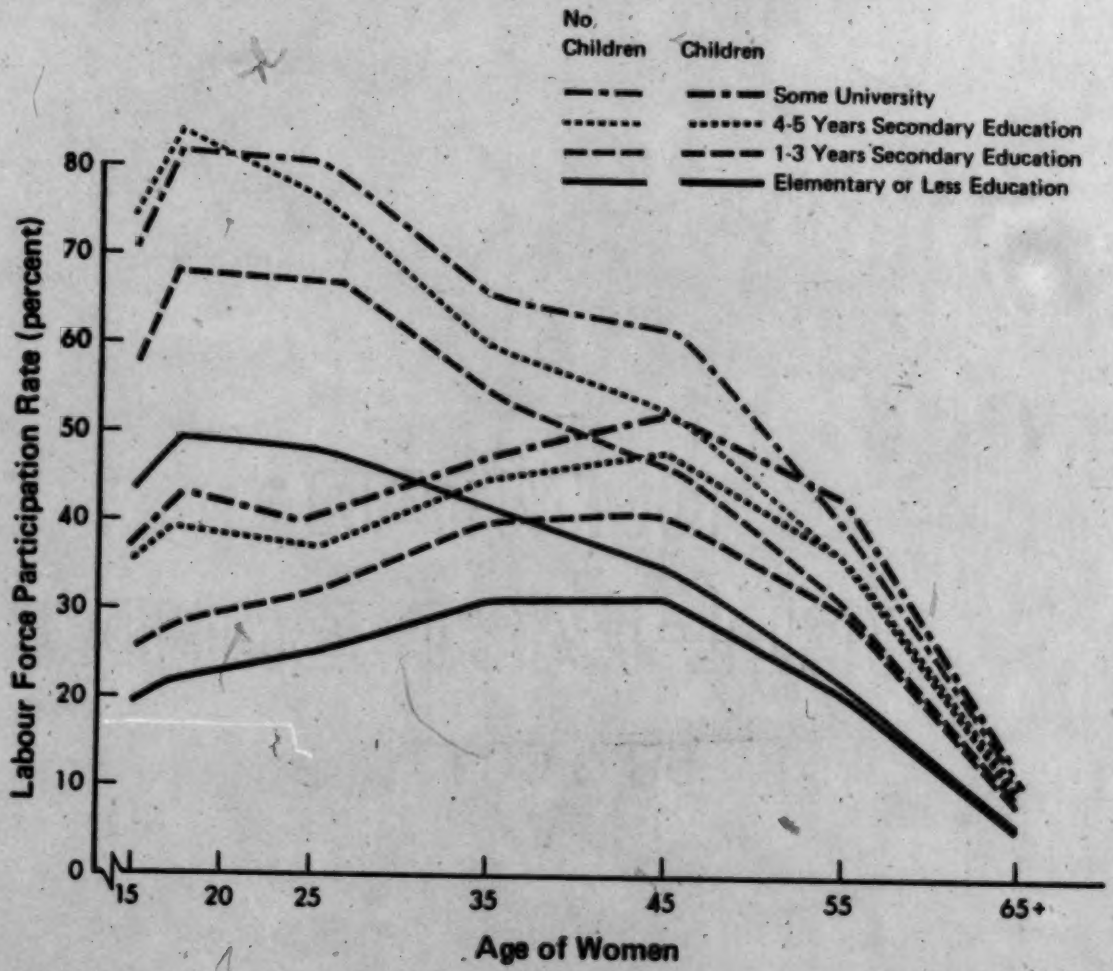


[a]Includes only women whose husbands are present.

[b]Source: Canada, Statistics Canada, 1971 Census of Canada, Families – Families by Labour Force Activity of Family Members, Vol. II – Part: 2 (Bulletin 2.2-11) pp. 78-1, 78-2.

Note: Since small frequencies are common in the tails of these graphs caution should be exercised in the interpretation of the chart.

CHART 4:15
LABOUR FORCE PARTICIPATION PROFILE FOR MARRIED[a] FEMALES BY AGE AND NUMBER OF CHILDREN, CANADA 1971[b]



[a]Includes only women whose husbands are present.

[b]The data reflect only whether women have reported live births but do not reflect the age of the children.

[c]Source: Canada, Statistics Canada, Special Tabulation, 1971 Census of Canada.

CHART 4:16
LABOUR FORCE PARTICIPATION PROFILE OF MARRIED[a] FEMALES BY EDUCATION AND MOTHERHOOD[b], CANADA 1971[c]

the product of women with children. In other words, the cross-sectional labour force participation profile of married women with its two-phase pattern is the product of two different groups of women.

Although lack of comparable data makes a 1961-1971 and a United States-Canada comparison impossible, the data presented in Table 4:14 give some insight into differences between the U.S. (1970) and Canada (1971). Columns one and eight review the already familiar pattern of age specific rates for all women. Young females in Canada participate at higher levels than their American counterparts while older females in Canada participate at lower levels than their American counterparts.

Table 4:14 also demonstrates that ever married women constitute a smaller proportion of each age group in Canada than in the United States. This is particularly marked for the 20-24 year olds where ever marrieds constitute only 56.7% of the Canadian age group and 63.7% of the American age group (see columns 2 and 9). When one looks at the proportion of ever marrieds in each age group who have children under six another difference becomes apparent (see columns 3 and 10). Among Canadian ever marrieds, 20-24; 53.3% have children under six. Among American ever marrieds, 20-24; 58.9% have children under six. In the older age groups 37.1% of 35-39 year old ever marrieds in Canada have children under six while only 31.0% of comparable Americans have preschool children. The difference is slightly smaller for 40-44 year olds but in the same direction. Participation rates of ever married women with preschool children are lower at each age for Canadian ever married women than American ever married women (see columns 4 and 11).

TABLE 4:14

EVER MARRIED WOMEN AND MARRIED WOMEN, HUSBAND PRESENT BY AGE SHOWING PER CENT OF AGE GROUP, PER CENT WITH CHILDREN UNDER SIX, AND PARTICIPATION RATES FOR CANADA, 1971[a] AND THE UNITED STATES, 1970[b]

Age	Canada							United States						
	Female Labour Force Participation Rate	Ever Married			Married, Husband Present			Female Labour Force Participation Rate	Ever Married			Married, Husband Present		
		% of Age Group	% with Children under 6	Participation Rate	% of Age Group	% with Children under 6	Participation Rate		% of Age Group	% with Children under 6	Participation Rate	% of Age Group	% with Children under 6	Participation Rate
20-24	62.8	56.7	55.8	30.3	52.7	54.6	29.6	56.3	63.7	58.9	33.4	54.4	61.0	30.6
25-29	47.2	84.7	68.1	28.7	78.4	70.7	28.1	45.7	87.8	69.1	30.6	77.0	72.2	28.3
30-34	41.4	70.9	56.9	26.8	83.7	59.6	26.3	44.6	92.4	51.7	29.4	80.6	55.1	27.3
35-40	42.7	92.8	37.1	26.0	84.7	39.0	25.6	48.7	94.1	31.0	30.0	81.2	32.9	31.2
40-44	45.1	93.1	19.7	25.2	83.6	20.9	24.8	52.7	94.6	14.9	30.1	80.3	15.9	28.0

[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force--Work Experience, Vol. III--Part 7 (Bulletin 3.7-4) pp. 6-1 to 6-3.

[b]Source: U.S., Department of Commerce, Bureau of Census, 1970 Census of Population: Employment Status and Work Experience, Vol. II, PC(2)-6A.

The data given in Table 4:14 for women with husband present elaborate on the observations made above. Except the youngest age group, more Canadian than American women report their husbands present despite the fact that fewer of them are ever married. In other words as pointed out in Table 4:7 fewer Canadians are widowed, separated or divorced. As in the case of ever married women, fewer young and more older women, husband present, have children under six in Canada than in the United States. At all age levels but particularly for those 35-39 and 40-44 Canadian women, husband present with preschool children participate in the labour force less than comparable American women.

These findings begin to clarify some of the difference between Canada and the United States by demonstrating that fewer young Canadians are married and that even those who are are less likely to have children. Some part of the higher initial participation rates for all Canadian women in contrast to all American women can be attributed to this difference. In the case of women over thirty lower participation rates for all Canadian women are related to the fact that more of them are married, husband present and more of them have preschool children than is the case in the United States. The observation that Canadian women--ever married or married, husband present--with children under six participate in the labour force less often than their American peers would add to the differential. This pattern of later marriage, younger children at older ages, and more intact marriages in Canada may be part of the reason why the second hump of the two-phase pattern of participation is no more evident in 1971 than in 1961.

Continuing in a similar mode of analysis, Table 4:15 makes comparisons between the regions of Canada. On the basis of the per cent of married women, husband present with children under six; one would predict that in the first phase of the two-phase pattern of participation Quebec would have the highest labour force participation rates followed in order by Ontario, British Columbia, the Prairies and the Maritimes. Earlier discussion has pointed out that for the younger ages, Quebec has, in fact, the second lowest rate and is preceded by British Columbia (see Chart 4:11).

One would also expect that the second hump in the two-phase pattern would be highest for British Columbia followed by Ontario, the Prairies, Quebec and the Maritimes. In fact, Ontario and the Prairies are highest, followed by British Columbia, the Maritimes and finally, Quebec. Quebec has the lowest educational levels, hence participation can be expected to be low though, as is pointed out above, this is not a sufficient explanation. If one is considering all women the large proportion of single women in Quebec makes its low labour force participation more curious.

British Columbia with its relatively low rates of participation in the face of relatively low proportions of married women, husband present with children under six, is also an anomaly. The high level of education in British Columbia should further enhance the labour force participation of all women as well as married women but such is not the case. One possible factor may relate to the industrial distribution of the labour force. While 10.5% of the Canadian labour force is based in British Columbia, 19.4% of the Canadian forestry workers, fishermen, trappers and miners are based in British Columbia.

TABLE 4:15

PER CENT OF MARRIED WOMEN, HUSBAND PRESENT WITH CHILDREN UNDER SIX BY AGE FOR THE REGIONS OF CANADA, 1971[a]

Age	REGION				
	Atlantic	Quebec	Ontario	Prairies	British Columbia
20-24	68.2	53.1	55.7	57.6	55.8
25-29	76.2	70.9	68.9	72.8	68.2
30-34	62.3	61.2	58.7	60.4	55.0
35-39	45.2	40.9	37.4	39.0	34.1
40-44	28.2	22.6	19.0	21.3	16.8
45+	4.5	3.4	2.3	2.9	1.9

[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Labour Force--Work Experience, Vol. III--Part: 7 (Bulletin 3.7-4) pp. 8-5 to 8-33.

It should be noted, however, that these workers constitute only 5.1% of the British Columbia labour force. The impact of participation patterns in British Columbia is, of course, less than that of Quebec because it constitutes a smaller proportion of the Canadian population.

Income of Husband

The final area which this chapter will explore is that of husband's income. Unfortunately, income data for families from the 1971 Census data are, as yet, very limited. Other studies have, as indicated earlier, shown a negative relationship between husband's income and female labour force participation.[14] Canadian data available for 1971 give support to these earlier findings. Average employment income of males whose wives are in the labour force was $7,211 compared to $8,150 for males whose wives are not in the labour force. This tendency for females to be less active as their husband's income rises counteracts the direct effects of education on participation since educated females are more likely to marry educated males who are higher income earners.

One available form of 1971 data related to income is that of husband's labour force status. If economic necessity promotes female force participation then one would expect that participation to rise when husbands are not in the labour force. Table 4:16 disproves this expectation. As the table indicates, one reason why wives under 44 whose husbands are not in the labour force participate at lower rates is their large families. For this age group also education may be a factor. Since husbands may not be in the labour force because of their low skill levels their wives may also be deficient in

TABLE 4:16

LABOUR FORCE PARTICIPATION RATES AND MEAN NUMBER OF CHILDREN BY LABOUR FORCE STATUS OF HUSBAND, CANADA 1971[a]

Age	Husband in Labour Force		Husband Not in Labour Force	
	Labour Force Participation Rate of Wives	Mean Number of Children	Labour Force Participation Rate of Wives	Mean Number of Children
Under 25	49.6	.8	30.7	.9
25-34	38.7	2.1	23.0	2.3
35-44	40.8	2.9	22.2	3.3
45-64	38.0	1.4	20.2	.9
65+	16.0	.2	3.7	.2

[a]Source: Canada, Statistics Canada, 1971 Census of Canada: Families-Families by Labour Force Activity of Family Members, Vol. II--Part: 2 (Bulletin 2.2-11) pp. 78-1 and 78-2.

education or work skills. A husband in poor health would also constrain female labour force participation. In the case of the over 45 group a considerable number of retired husbands would be included among those not in the labour force and hence, the economic necessity argument would be attenuated.[15]

CONCLUSION

In this chapter, female labour force participation was most strongly related to age, region, education, marital status and child status. These relationships will be examined further in the next chapter using the technique of regression analysis. Only married women, husband present are included in the following analysis.

In addition to an examination of changes in labour force participation over the decade 1961 to 1971 and the variables associated with differential degrees of participation, this chapter has focussed on the two-phase pattern of participation. Several factors appear to be related to the failure of this pattern to emerge in Canada as it has appeared elsewhere. Regional differences in family size, fertility, and education are such that Quebec and the Maritimes have participation profiles that are more characteristic of 1961 than 1971. British Columbia, too, has participation rates that are lower than might be expected though the reasons for this are not clear. The result of this is to offset the effects of the emergence to the two-phase pattern elsewhere. There are also differences between regions that go beyond what can be accounted for by the factors of family size, fertility, and education. Although it is not possible to specify these factors they may be attitudinal

ones--specifically more traditional attitudes towards female roles.

When one compares Canada and the United States additional factors related to the non-appearance of the two-phase pattern of participation in Canada become apparent. In comparison to American women, Canadians marry later, have children later, and have more intact marriages. The first peak in participation is as a consequence higher and the second is lower.

FOOTNOTES

[1]S. Ostry, The Female Worker in Canada (Labour Force Series, Dominion Bureau of Statistics, Ottawa: Queen's Printer, 1968) p. 3.

[2]Ibid., p. 12.

[3]W. Kalbach and W. McVey, The Demographic Bases of Canadian Society (Toronto: McGraw-Hill Company of Canada Limited, 1971) p. 244.

[4]Ibid., p. 147.

[5]Ibid., p. 297.

[6]Ibid., pp. 200-203, pp. 75-80, pp. 219-223, and S. Ostry, "Unemployment in Canada" in C.L. Boydell, C.F. Grindstaff, P.C. Whitehead (eds.) Critical Issues in Canadian Society (Toronto: Holt, Rinehart and Winston of Canada, Limited; 1971) p. 227.

[7]Ostry, op. cit., p. 31; J.D. Allingham, Women Who Work: Part I (Special Labour Force Studies, Dominion Bureau of Statistics, Ottawa: Queen's Printer, 1967), p. 17; J.D. Allingham and B.G. Spencer, Women Who Work: Part 2 (Special Labour Force Studies, Dominion Bureau of Statistics, Ottawa: Queen's Printer, 1968) p. 21.

[8]M. Sobol "A Dynamic Analysis of Labour Force Participation of Married Women of Childbearing Age," The Journal of Human Resources, VIII (No. 4, 1973), pp. 502-503.

[9]R.S. Weiss and N.M. Samuelson, "Social Roles of American Women: Their Contribution to a Sense of Usefulness and Importance," Marriage and Family Living, XX (No. 4, 1958), pp. 358-366, and M.W. Weil, "An Analysis of the Factors Influencing Married Women's Actual or Planned Work Participation," American Sociological Review, XXVI (No. 1, 1961), pp. 91-96.

[10]R.T. Michael, "Education and the Derived Demand for Children," in T.W. Schultz (ed.) The Economics of the Family: Marriage, Children and Human Capital (Chicago: University of Chicago Press, 1974), p. 154.

[11]Ostry, op. cit., pp. 35-37.

[12]Canada, Statistics Canada, 1971 Census of Canada: Labour Force Activity--Work Experience, Vol. III--Part 7 (Bulletin 3.7-2) pp. 1-1 to 1-22.

[13]Allingham and Spencer, op. cit., p. 15; Ostry, op. cit., p. p. 19; B.G. Spencer, "Determinants of the Labour Force Participation of Married Women: A Micro Study of Toronto Households" (Mimeo, Hamilton: McMaster University, 1973), p. 9; N. Skoulas, Determinants of the Participation Rate of Married Women in the Canadian Labour Force: An Econometric Analysis (Statistics Canada, Ottawa: Information Canada, 1974), pp. 60-61.

[14]Ostry, op. cit., p. 32; Spencer, op. cit., pp. 10-11; Skoulas, op. cit., p. 53.

[15]Skoulas, op. cit., p. 54.

CHAPTER V

REGRESSION ANALYSIS

This chapter attempts to sort out some of the relationships examined the preceeding section. More particularly it seeks to examine the effects of several independent variables acting together on labour force participation by using multiple regression analysis. Multiple regression analysis makes it possible to see how much of the variation in the dependent variable can be explained by the independent variables included in the analysis. This is indicated by the coefficient of determination (R^2). It also allows for the specification of the direction or nature of the relationship between the dependent variable and any particular independent variable when the effects of the other independent variables are taken into account. This can be observed through an examination of the regression coefficients. Finally, multiple regression analysis allows one to assess the relative importance of the independent variables in relation to the dependent variables. This is done through an examination of the standardized regression coefficients or beta weights.

The analysis undertaken here is a limited one. It is limited in the sense that it focuses only on married women, husband present. This group of women is singled out for special examination because as Chapter IV demonstrates it is this group that is responsible for the increase that occurred in the labour force participation rates of all women between 1961 and 1971. Married women, of course, con-

stitute the largest proportion of all adult women and since their labour force participation is low relative to single or widowed, separated, and divorced women, there is more room for growth in participation in this sector of the population than in others.

This analysis is limited also in another sense. Constraints imposed by data availability limit the number of variables included in the analysis. The independent variables considered here are region, age, education, and child status. The dependent variable is, of course, labour force participation.

The first section of this chapter analyzes the effects of the independent variables on the presence or absence of women in the labour force. Also included in this section is a comparison between calculations based on disaggregated or individual and aggregated cross-sectional data.

The second section of this chapter examines the effects of some of the independent variables on the dependent variable when one of the independent variables is restricted or held constant. This allows for the examination of the strength and nature of the relationships that obtain for particular categories of married women.

REGRESSION ANALYSIS-FULL MODELS

Table 5:1 contains the regression results pertaining to all married women, husband present, in Canada in 1971. The constant indicates that 39.74% of all married women, husband present, were in the labour force in 1971. As the coefficient of multiple determination (R^2) indicates, the explanatory power of the regression equation is small with 10.13% of the variance in participation accounted for by

TABLE 5:1

DETERMINANTS OF LABOUR FORCE PARTICIPATION OF MARRIED WOMEN, (HUSBAND PRESENT), CANADA 1971

Independent Variable	Cross-Sectional[a] Individual Data		Aggregate[b] Ratio Data
	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient
Region			
Atlantic	-4.44	-4.01	-4.42
Quebec	-5.68	-6.86	-5.65
Ontario	6.24	8.16	6.13
Prairie	5.19	5.49	5.22
British Columbia	-1.30	-2.78	-1.28
Age			
15-24	11.09	11.82	11.10
25-34	7.09	9.07	7.17
35-44	3.99	4.98	3.87
45-54	-2.48	-3.00	-2.47
55-64	-19.69	-22.87	-19.67
Education			
Elementary	-10.10	-12.13	-10.05
1-3 Years Secondary	-2.85	-3.55	-2.86
4 or More Years Secondary	3.76	4.10	3.77
Some University	9.19	11.58	9.14
Child Status			
No Children at Home	15.15	23.80	15.11
Some Children at Home, none under 6	2.44	4.27	2.45
Some Children under 6 at home	-17.59	-28.07	-17.56
Constant	39.74		39.79
R^2	.1013		.8739
Number of Observations	4,258,590		300
F	36,810.19		152.93

[a] Cross-sectional individual data were used for this set of calculations. The dependent variable was a dummy variable indicating whether individuals were in the labour force or not. All independent variables were also dummy variables. The reader is referred to pages 56 and 57 for a discussion of the methodology.

[b] A second set of calculations was based on aggregate data. In this instance the dependent variable was the participation rate of a specified group of women. Specification was based on the categories of the independent variables. In this case then, the independent variables were dummy variables and the dependent variable was continuous.

the independent variables. Low R^2 are common when cross-sectional individual data are used because many relatively important factors are neglected and they create a large amount of random variation.[1] All regression coefficients in this table are significant at the .05 level or better.

The F-statistic is large at 36,910.19 and highly significant but this is to be expected because the number of observations is so great and the degrees of freedom are as a consequence extremely high. Since large F's are typical of this analysis they will not be discussed in later sections though they are indicated on each table.

In relation to region, the regression coefficients indicate that in the Atlantic, Quebec, and British Columbia regions participation is below the average level of 39.74% while it is above that level in the Ontario and British Columbia regions. At the extremes, married women in Ontario have participation rates 11.43 (6.24 - (-5.68)) percentage points above Quebec women. This is consistent both with the findings in Chapter IV and the findings of other researchers.[2]

In terms of age, participation decreases with age with the participation rate of 15-24 year olds 30.78 points higher than the participation rate of 55-64 year olds. It should be noted that the regression coefficients do not reflect the two phase pattern of participation because regression analysis controls for the confounding effects of other variables (in this instance child status) when assessing the contribution of any specific independent variable (in this instance age). The relationship observed here is consistent with the findings of Ostry, Allingham and Spencer and others.[3]

Education exerts a positive effect on labour force participa-

tion of married women. Women with four or more years of secondary schooling or with some university education participate above the 39.74% norm while those with less education participate below the norm. Those women with some university education have participation rates 19.29 points higher than those with elementary or less education. Again this is expected.[4]

The presence of preschool children acts as a deterrent on the participation of married women. Women with no children at home have a participation rate of 32.74 points above that of women with children under six while women with children at home but none under six have a participation rate 20.03 points above that of women with children under six. Previous studies have indicated similar results.[5]

Turning now to the standardized regression coefficients, the relative importance of each set of variables can be assessed. As indicated in Chapter III, standardized coefficients indicate the change in the dependent variable that occurs when an independent variable changes by a standardized amount and all other independent variables are controlled. The relative importance of the child status variable becomes apparent in viewing the beta weights. Controlling region, age and education, standardized participation rates will vary between 11.67 for women with preschool children and 63.54 for women with no children at home. Age is the next most important set of variables with participation rates varying between 16.87 for women between 55-64 years of age and 50.56 for women between 15-24 years of age. Education ranks third in importance. Standardized participation rates vary from 26.61 for women with elementary or less education to 50.32 for women with some university education. Region

is the least important variable. Women in Quebec have a standardized participation rate of 32.88 as compared to 47.90 for women in Ontario.

Table 5:1 also gives the regression coefficients obtained when participation rates were used as the dependent variable rather than the frequencies for women in or out of the labour force. The data base for both the individual and aggregate tabulations was the same--the special tabulations from Statistics Canada. These parallel calculations were undertaken because both individual and aggregate data have been used by other investigators but they have not been comparable because the data bases differed. Typically, calculations done with aggregate data yield high R^2 while calculations done with individual data yield low R^2. This is seen clearly in Table 5:1 where the R^2 for the aggregate data is .8739 while it is only .1013 for the individual data. As Namboodiri, Carter and Blalock point out, in the aggregate case all variation "around the regression line save that produced by means falling off the line"[6] is ignored. "The R's tend to be quite large because the main source of error variation (within category variation) is eliminated."[7]

Despite the differences in the R^2, the regression coefficients should be similar whether aggregate or individual data are used. Again this is borne out in Table 5:1. For example, the regression coefficient for the Atlantic region in -4.44 in the disaggregate case and -4.42 in the aggregate case. This is as it should be because grouping on the independent variables does not change the nature of the relationships between the independent variables and the dependent variables.[8]

As indicated in Chapter III the standardized regression

coefficient is given by

$$\beta = B\left(\frac{s_x}{s_y}\right)$$ where β is the standardized regression coefficient
B is the regression coefficient
s_x is the standard deviation of the independent variable
s_y is the standard deviation of the dependent variable

In the aggregate case sy becomes smaller relative to the disaggregate case while sx remains the same. As a consequence the standardized regression coefficients become inflated. The beta weights for the aggregate calculations are not reported here for this reason.[9]

One can conclude from this discussion that the use of aggregate data instead of cross-sectional individual data gives clear indication of the nature of the relationships between the variables under consideration but may be misleading in terms of the strength of the relationship.

REGRESSION ANALYSIS WITH RESTRICTION

Region

Table 5:2 gives the regression results when region is held constant. The R^2's in all cases are low with less than 10% of the variance accounted for. In examining the regression coefficients it is apparent that for each region participation is negatively associated with age and the presence of preschool children but positively related to education. The size of the regression coefficients differ from region to region. Looking at the extremes for each set of variables, the participation rate of women aged 15-24 is 22.29 points above those of women aged 55-64 in the Maritimes

TABLE 5:2

DETERMINANTS OF LABOUR FORCE PARTICIPATION OF MARRIED WOMEN (HUSBAND PRESENT), CANADA 1971—RESTRICTED BY REGION

Independent Variable	REGION									
	Atlantic		Quebec		Ontario		Prairie		British Columbia	
	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient
Age										
15-24	7.85	9.36	12.29	13.43	12.36	12.86	9.84	10.59	9.84	10.73
25-34	4.67	6.36	7.03	9.67	8.18	10.14	4.87	6.12	7.66	9.92
35-44	3.36	4.39	1.95	2.60	4.84	5.91	4.65	5.72	5.20	6.55
45-54	-1.64	-2.11	-3.47	-4.40	-2.74	-3.23	-.87	-1.04	-2.39	-2.97
55-64	-14.34	-18.00	-17.80	-21.30	-22.64	-25.68	-18.49	-21.39	-20.31	-24.23
Education										
Elementary	-16.97	-21.36	-12.46	-16.59	-7.50	-8.43	-8.41	-9.65	-8.76	-9.71
1-3 Years Secondary	-5.53	-7.40	-3.86	-4.88	-2.22	-2.68	-3.21	-4.13	-3.77	-4.91
4 or More Years Secondary	7.05	6.64	4.49	4.02	4.34	4.95	1.96	2.23	3.08	3.91
Some University	15.45	22.12	11.83	17.45	5.38	6.16	9.68	11.55	9.45	10.71
Child Status										
No Children at Home	13.06	21.53	14.95	24.62	15.62	24.12	14.31	22.54	15.89	25.27
Some Children, none under 6	1.83	3.47	-.07*	-.13	3.47	5.89	3.92	6.71	4.21	7.13
Some Children under 6	-14.89	-25.00	-14.88	-24.75	-19.09	-30.01	-18.43	-29.25	-20.10	-32.40
Constant	38.10		35.88		44.87		44.98		38.33	
R^2	.0953		.0984		.0817		.0748		.0871	
Number of Observations	376,836		1,142,667		1,592,115		702,155		444,820	
F	4412.64		13863.87		15737.09		6310.92		4714.52	

*Not significant at .05 level

while it is 35.00 points higher in Ontario. With regard to education the participation rate of university educated women is 32.42 points higher than the rate for women with elementary or less education in the Maritimes, while the difference is only 12.88 points in Ontario. In the case of child status the participation rate is 27.95 points higher for women with no children compared to women with preschool children in the Maritimes while the participation rate is 35.99 points higher for women with no children compared to women with preschoolers in British Columbia. It would appear that the effects of education are more variable from region to region than is the case with age or child status.

The relative importance of the independent variables within each region can be seen from an examination of the beta weights. Within each region the child status variable is the most important, that is, the greatest variation in the standardized rates is evidenced in the case of the child status variable. Age is the next most important variable for all regions except the Atlantic region where education is more important than age. To illustrate, in the Maritimes participation rates for 15-24 year olds and 55-64 year olds were 47.46 and 20.10 respectively. The rates for university and elementary or less educated women were 60.22 and 16.74 respectively. In British Columbia participation rates for 15-24 year olds and 55-64 year olds were 49.06 and 14.10 while the rates for university and elementary educated women were 49.04 and 28.62. For the Atlantic region, then, education is related to greater variation in the standarized participation rates when age and child status are controlled than is the case with age when education and child status

are controlled. The reverse is true in the case of British Columbia.[10]

Age

Table 5:3 shows the results of the regression analysis when age is restricted. The coefficients of determination (R^2's) become smaller as one progresses up the age ladder. The R^2 is .2264 for the 15-24 year old group but declines for each consecutive age group to .0359 for 55-64 year olds. The amount of variation explained by the independent variables included in this analysis is, then, considerably greater for the youngest age group than for the older age groups.

The regional patterning noted earlier is evident here. Women who live in the Atlantic, Quebec or British Columbia regions participate less than the average for their age group. On the other hand women in Ontario and Alberta participate more than the average. Looking across age groups the size of the regional coefficients can be seen to differ by age. For example, living in Quebec is a relatively weak negative influence for the youngest age group (the regression coefficient is -.68) but it has a stronger negative influence for older women (the coefficient is -8.89 for 45-54 year olds). In the case of British Columbia women the negative effect is strongest for 15-24 year olds at -4.77 but weakens with increasing age to -.29 for 45-54 year olds and -.35 for 55-64 year olds.[11]

In comparing regional variations between age groups another kind of difference becomes apparent. For 15-24 year olds the highest rate occurs in Ontario and is 10.99 points greater than that of British Columbia with the lowest rate. For 25-34 year olds and

TABLE 5:3

DETERMINANTS OF LABOUR FORCE PARTICIPATION OF MARRIED WOMEN (HUSBAND PRESENT), CANADA 1971--RESTRICTED BY AGE

Independent Variable	AGE 15-24		25-34		35-44		45-54		55-64	
	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient
Region										
Atlantic	-3.18	-2.88	-3.72	-3.32	-5.81	-5.06	-5.83	-5.26	-3.45	-3.52
Quebec	-.68	-.78	-4.01	-4.91	-8.95	-10.76	-8.89	-10.68	-6.98	-9.24
Ontario	6.22	7.96	6.37	8.27	7.33	9.49	6.80	8.94	4.13	5.98
Prairie	2.41	2.53	3.03	3.16	6.63	6.86	7.63	8.13	6.65	7.95
British Columbia	-4.72	-6.83	-1.47	-3.20	-.80	-.53	-.29	-1.13	-.35	1.17
Education										
Elementary	-13.40	-13.30	-8.96	-10.48	-7.36	-8.81	-9.93	-11.90	-10.02	-13.27
1-3 Years Secondary	-5.10	-6.58	-2.14	-2.87	-.90	-1.11	-2.01	-2.34	-2.21	-2.68
4 or more Years Secondary	8.25	10.00	3.47	4.21	1.98	2.04	2.49	2.43	2.41	2.36
Some University	10.27	9.86	7.63	9.14	6.28	7.88	9.45	11.81	9.82	13.39
Child Status										
No Children at Home	22.37	44.31	24.99	37.58	16.06	18.08	8.00	8.51	1.17	1.27
Some Children, none under 6	-5.07	-5.20	-5.58	-9.57	-.22	-.39	2.27	2.69	3.38	3.59
Some children under 6	-17.30	-39.11	-19.41	-28.01	-15.84	-17.69	-10.27	-11.20	-4.55	-4.86
Constant	47.02		47.89		43.98		38.93		29.88	
R^2	.2264		.1322		.0682		.0510		.0359	
Number of Observations	565,935		1,151,198		1,041,610		918,945		580,905	
F	18409.85		19492.02		8469.24		5489.54		2389.94	

35-44 year olds Ontario has the highest rates and Quebec the lowest rates (a difference of 10.38 points for 25-34 year olds and a cifference of 16.28 points for 35-44 year olds). Another shift occurs for the two oldest groups with the Prairies having the highest rates and Quebec the lowest (a difference of 16.52 points for 45-54 year olds and 13.63 points for 55-64 year olds.

Participation rises as education increases in all age groups, however, education is more important for the youngest and oldest than it is in between. Among 15-24 year olds the participation rate of university educated women is 23.69 points higher than that of women with elementary or less education. Among 35-44 year olds the participation rate of university educated women is only 13.64 points higher than that of women with elementary or less education. Among 55-64 year olds the difference between the two educational groups is 19.84. The importance of education would seem to depend upon age.

Since child status is related to age one would expect to see clear differences in the effect of this variable in different age groups. This is clearly the case. For the first three age groups the presence of any children, preschool or older has a negative effect on participation. Also, the differences in participation are considerable depending on whether there are no children at home or preschool children at home. This difference is greatest for 25-34 year olds where women with no children at home have participation rates 44.40 points higher than women with preschoolers. For the two oldest groups only preschoolers depress participation and the differences between child status categories become smaller. In the oldest age group

women with children at home but none under six have the highest rate but this is only 7.93 points higher than the participation rate of women with preschool children.[12]

Turning now to an examination of the standardized regression coefficients, the rank order of importance of the variables within each age group are:

a) 15-24 year olds--(1) child status, (2) education, (3) region;

b) 25-34 year olds--(1) child status, (2) education, (3) region;

c) 35-44 year olds--(1) child status, (2) region, (3) education;

d) 45-54 year olds--(1) education, (2) child status, (3) region;

e) 55-64 year olds--(1) education, (2) region, (3) child status.

Not surprisingly the child status variable becomes less important with increasing age while education becomes more important.

Child Status

As the R^2's in Table 5:4 indicate the explanatory power of the variables included in the analysis is greatest for women with no children at home (R^2 = .1968). When child status is restricted, the influence of the regional variable is such that residents of Ontario and Alberta have participation rates consistently above the norm for the relevant child status category. Residents of the Atlantic and Quebec regions have rates consistently below the norm as is the case for British Columbia except in the some children at home, none under six category. The regression coefficients for Ontario are the highest positive coefficients for each child status category. Regional variation is greatest for women with some children at home but none under six where the participation rates in Ontario are 17.11

TABLE 5:4

DETERMINANTS OF LABOUR FORCE PARTICIPATION OF MARRIED WOMEN (HUSBAND PRESENT), CANADA 1971—RESTRICTED BY CHILD STATUS

Independent Variable	CHILD STATUS: No Children at Home		Some Children at Home, None under 6		Some Children Under 6 at Home	
	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient
Region						
Atlantic	-4.16	-3.68	-5.95	-5.27	-3.34	-3.29
Quebec	-4.98	-5.86	-9.72	-11.75	-2.96	-3.84
Ontario	5.35	7.10	7.39	9.55	5.90	8.16
Prairie	5.16	5.54	7.24	7.54	3.48	3.92
British Columbia	-1.37	-3.10	1.04	.07	-3.08	-4.95
Age						
15-24	13.25	19.73	.03*	.02	2.25	2.13
25-34	15.81	21.28	2.43	2.46	1.45	1.63
35-44	4.79	5.58	4.37	5.70	.88	.80
45-54	-8.71	-12.92	.69	.88	-.22*	-.10
55-64	-25.14	-33.67	-7.52	-9.06	-4.36	-4.46
Education						
Elementary	-13.12	-15.92	-8.52	-10.12	-7.28	-9.13
1-3 Years Secondary	-2.93	-3.62	-1.41	-1.68	-2.86	-3.97
4 or more Years Secondary	6.40	7.22	2.53	2.52	2.65	3.26
Some University	9.65	12.32	6.13	9.28	7.49	9.84
Constant	56.87		39.88		27.06	
R^2	.1968		.0493		.0221	
Number of Observations	1,132,342		1,753,700		1,372,551	
F	25226.63		8246.89		2820.16	

*Not significant at the .05 level.

points higher than in Quebec. This compares to a difference of 10.33 between Ontario and Quebec for women with no children at home and a difference of 9.24 between Ontario and the Atlantic region for women with children under six.

When one looks at age while holding child status constant, clear difference in patterns of participation appear. In the case of women with no children at home the predicted participation rates rise between the first and second age category then decline with each successive increase in age. The highest level of participation occurs for those 25-34, the lowest level of participation occurs for those 55-64 with participation rates of the 25-34 year olds, 41.05 points higher than the rates of the oldest. For women without children at home the peak of participation occurs at 25-34 years of age.

In the case of women with some children at home but none under six, the rate of the youngest group is not significantly different from the reference category or the constant (39.88). The rate then increases by 4.34 points to the highest rate for 35-44 year olds and finally, declines to -7.52 for 55-64 year olds. For women with children at home none of whom are under six the peak of participation occurs at 35-44 years of age.

Only in the case of women with children under six at home is the previously observed pattern of consistent decline in participation as age increases observed. For these women 15-24 year olds have the highest predicted rates and 55-64 have the lowest rates. The difference between the two is 6.61 percentage points.

The patterns of participation by age that are revealed when child status is held constant are consistent with the observation

made in the previous chapter. That is, the two phase pattern of participation is characteristic only of married women and the first peak is the product of high participation by young women without children while the second peak is the product of rising participation on the part of women with older children.

Education is positively related to participation for all child status groups. The amount of variation in participation rates due to education is, however, greatest for those women without children at home. In this category women with a university education have participation rates 22.77 points higher than women with an elementary or less education. The comparable differences for women with children but none under six and for women with children under six are 14.65 and 14.77 respectively.

The importance of region, age and education varies within each child status category as is reflected in the standardized regression coefficients. Age followed by education then by region is the most influential variable for women without children at home. The estimated rates vary between 78.15 (25-34) and 23.20 (55-64) in the case of age, between 69.19 (some university) and 40.95 (elementary or less) in the case of education, and between 63.97 (Ontario) and 51.01 (Quebec) in the case of region.

Region is the most influential variable for women with children, none under six followed by education then age. With standardization, the rates vary between 49.43 (Ontario) and 28.13 (Quebec) for the regional factor, between 49.16 (some university) and 29.76 (elementary or less) for the education factor, and between 45.58 (35-44) and 30.82 (55-64) for the age factor.

The order of importance of the independent variables is education, region, and age for women with children under six. Standardized rates vary from 36.90 (some university) to 17.93 (elementary or less) for education. They vary from 35.22 (Ontario) to 22.11 (British Columbia) for region and they vary from 29.19 (15-24) to 22.60 (55-64) for age. To conclude, the order of importance of region, age and education when child status is restricted or held constant is not consistent between categories.

Education

Unlike Tables 5:3 and 5:4, Table 5:5 holds few suprises. In regards to the coefficients of determination, more variance is accounted for in the two highest educational categories. The R^2's are, of course, still low at .1147 for four or more years of secondary schooling and .1130 for some university. The predicted rates increase as one moves from the lowest to highest educational groups.

It can be seen from the regression coefficients that the importance of the regional variable declines with increasing education. Among married women with elementary education the participation rate of women in Ontario is 17.50 points higher than the rate of women in the Atlantic region. Among married women with some university education the Prairies have the highest level of participation, Quebec has the lowest with a range of difference of 6.53 percentage points. In all educational groups but that with some university, the coefficients for the Atlantic, Quebec and British Columbia regions fall below the reference or constant appropriate for the category. The predicted rates for the Atlantic and Prairie regions are above the

TABLE 5:5

DETERMINANTS OF LABOUR FORCE PARTICIPATION OF MARRIED WOMEN (HUSBAND PRESENT), CANADA 1971—RESTRICTED BY EDUCATION

Independent Variable	Elementary or Less		1-3 Years Secondary		4 or More Years Secondary		Some University	
	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient	Regression Coefficient	Standardized Regression Coefficient
Region								
Atlantic	-8.68	-7.62	-4.36	-4.13	-.12*	-.11	2.40	2.22
Quebec	-7.72	-10.14	-4.94	-5.85	-4.19	-4.45	-3.04	-3.57
Ontario	7.82	9.76	6.18	7.99	5.18	7.54	-.02*	-.02
Prairie	7.66	7.36	5.01	5.38	2.00	2.33	3.49	4.06
British Columbia	-.92	-.64	-1.86	-3.39	-2.87	-5.31	-2.83	-2.69
Age								
15-24	5.66	6.29	8.59	9.02	15.30	16.00	11.32	11.22
25-34	4.61	6.47	7.13	8.88	9.07	10.85	8.00	9.87
35-44	4.33	6.58	5.15	6.18	3.18	3.45	2.16	2.33
45-54	-.71	-1.09	-1.51	-1.71	-3.57	-3.67	-.96	-.95
55-64	-13.89	-18.25	-19.36	-22.37	-23.98	-26.63	-20.52	-22.47
Child Status								
No children at home	7.66	12.34	15.65	24.40	19.33	30.96	19.38	31.96
Some children, none under 6	2.93	5.41	2.07	3.70	2.30	3.88	.82	1.36
Some children under 6	-10.59	-17.75	-17.72	-28.10	-21.63	-34.84	-20.20	-33.32
Constant	28.82		36.73		44.07		50.59	
R^2	.0534		.0683		.1147		.1130	
Number of Observations	1,366,130		1,607,905		946,813		337,745	
F	7700.72		11779.47		12272.53		4303.44	

*Not significant at the .05 level.

reference rate for university educated women while the predicted rates for Quebec and British Columbia fall below the reference rate. In Ontario the predicted rate is not significantly different from the reference rate.

Looking at the effects of age across the educational groups, it appears that the effects of age are greatest for those with 4 or more years of secondary education (39.20 points between youngest and oldest). The comparable differences are 31.84 for those with some university, 27.92 for those with one to three years secondary and 19.55 for those with elementary or less education. In all educational categories participation is highest for the youngest and lowest for the oldest.

The effects of child status when education is held constant are consistent with observations made at the outset of this chapter. Children under six deter participation of their mothers in all educational groups. The absence of children encourages participation in all educational groups. Looking across the educational groups the effects of young children can be seen to be less for the least well educated and comparatively greater for the two highest educational categories. In the case of the least educated, women with no children at home have a rate 18.25 points higher than women with preschoolers. In the case of those with four or more years of secondary education, women with no children have a participation rate 40.96 percentage points higher than women with children under six.

An examination of the standardized regression coefficients shows that within each education category the child status variable is most influential, followed by the age and finally, the regional

variables. This is consistent with the ordering evident in the unrestricted case.

CONCLUSIONS

The results of the analysis when all independent variables are included in the regression equation, indicates that the independent variables--region, age, education and child status--explain only 10% of the variance in the labour force participation of married women, husband present. As is pointed out earlier low R^2's are common when disaggregated cross-sectional data are used and should not be cause for alarm.

As expected participation decreases with increasing age and with the presence of children, particularly preschool children. Education, on the other hand, is positively related to labour force participation. In terms of the regional variable, participation is lowest in Quebec increasing in the following ordering of regions--the Atlantic, British Columbia, Prairie and Ontario. When the relative impact of the independent variables on the dependent variable is considered, child status is most important, then age, then education and finally, region.

When calculations based on both disaggregate and aggregate data are compared, it is evident that while the nature of the relationships between the independent and dependent variables remain the same, the amount of variance explained in the aggregate case is artificially high. Some caution should therefore be exercised in the interpretation of variance when aggregate data are used.

The introduction of restrictions by region does not alter the

conclusions drawn from the full model about the nature of the relationships between the independent and dependent variables. The relative importance of the independent variables in terms of their effects on the dependent variable are consistent with the results obtained when all variables are included in the regression equation except in the case of the Maritimes where education assumes greater importance than age. In Quebec age and education are equally important. This reflects the impact of the lower educational levels in these provinces that were noted in Chapter IV.

When restrictions by age are introduced, residence in Quebec is seen to be less of a deterrent to labour force participation for the two youngest age groups but particularly for the 15-24 year olds. These two groups are the ones in which current low levels of fertility in Quebec would be most in evidence. They are also the groups in which educational levels can be expected to be higher than those for all Quebec women because of the educational reforms of the 1960's. Finally, if there have been changes in attitudes about the role of women in Quebec it is the younger age groups in which attitudinal changes are more likely to be seen. Why labour force participation of 15-24 year olds in British Columbia should be the lowest in Canada remains enigmatic.

Restrictions by age also change the nature of the relationship between participation and child status changes for the three youngest age groups with the presence of children whatever their age deterring participation. Perhaps more important, is the change in the relative importance of the independent variables. Child

status is the most important variable for the three youngest age groups while education is the most important variable for the two older groups. This is not surprising since it reflects changes in the ages of children and the needs of the family as women get older.

Restriction by child status reveals differences in the nature of the relationship between participation and age. As noted in the preceding discussion the components of the two-phase pattern of participation are clarified when restriction by child status is introduced. Also, the ordering of independent variables in terms of the amount of variability they produce in the dependent variable is different within each child status category. For those women without children, age is the most important variable. For women with children but none under six, the region in which they live influences participation most. The importance of region in this case would reflect differences in employment opportunities between regions and perhaps more important differences in attitudes about the acceptability of employment for mothers. For those women with children under six, education is the most influential variable. More educated women with young children have the most saleable skills and have more resources with which to obtain adequate care for their children. They are also the women for whom job satisfaction and career commitment can be expected to be greatest. The factors, then, that encourage or constrain labour force participation among married women, husband present, are conditional upon child status.

Chapter IV discussed in some detail the variation in educational attainment between regions of Canada and the effects of this

on labour force participation. When restriction by education is introduced into the regression analysis the pattern of regional influences on participation is different in the highest educational category than in the lowest educational categories. While residence in the Maritimes is generally associated with low participation this regional effect is small for those with four or more years of secondary education and is actually positive for those with some university. This finding lends support to the idea that low overall participation in the Atlantic provinces is a reflection of the low levels of education characteristic of most women in that region. The effect of residence in Ontario while generally positively related to participation, is not significantly related to the participation of those with some university. There is, then, further evidence of the impact of regional variation on married female participation. The nature of relationship of age and child status to participation, and the relative importance of region, age, and child status for participation when education is held constant are consistent with the observations made in relation to the full model.

This analysis does not lead one to any insights, about the relationship of region, age, child status, and education to the labour force participation of married women, husband present, that are radically different from those obtained in the previous chapter. It does, however, clarify many observations made there with regard to the direction of the effects of the independent variables on participation; with regards to the components of the two-phase pattern of participation; and with regard to regional variation particularly, in education.

FOOTNOTES

[1]M.T. Hannan, Aggregation and Disaggregation in Sociology (Lexington, Massachusetts: D.C. Heath and Company, 1971), pp. 97-108.

[2]S. Ostry, The Female Worker in Canada (Labour Force Series, Dominion Bureau of Statistics, Ottawa: Queen's Printer, 1968), p. 54; N. Skoulas, Determinants of the Participation Rate of Married Women in the Canadian Labour Force: An Econometric Analysis (Statistics Canada, Ottawa: Information Canada, 1974), p. 58.

[3]J.D. Allingham and B.G. Spencer, Women Who Work: Part II (Dominion Bureau of Statistics, Ottawa: Queen's Printer, 1968) p. 13; Ostry, op. cit., p. 55; B.G. Spencer and D.G. Featherstone, Married Female Labour Force Participation: A Micro Study (Dominion Bureau of Statistics, Special Labour Force Studies, Series B, No. 4, Ottawa: Queen's Printer, 1970), p. 85; B.G. Spencer, "Determinants of the Labour Force Participation of Married Women: A Micro-Study of Toronto Households" (Mimeo, Hamilton: McMaster University, 1973) p. 13; Skoulas, op. cit., p. 61.

[4]Allingham and Spencer, op. cit.; Ostry, op. cit., p. 60; Spencer and Featherstone, op. cit.; Spencer, op. cit., pp. 11-12; Skoulas, op. cit., p. 59.

[5]Allingham and Spencer, op. cit.; Ostry, op. cit., p. 54; Spencer and Featherstone, op. cit.; Spencer, op. cit., pp. 9-10; Skoulas, op. cit., pp. 60-61.

[6]N.K. Namboodiri, L.F. Carter and H.M. Blalock, Jr. Applied Multivariate Analysis and Experimental Design (New York: McGraw-Hill Book Company, 1975), p. 167.

[7]Ibid.

[8]H.M. Blalock, Jr., Causal Inferences in Nonexperimental Research (Chapel Hill: The University of North Carolina Press, 1964) p. 106.

[9]Hannan, op. cit., p. 108-109.

[10]These observations are consistent with those of Skoulas, op. cit., p. 72.

[11]Skoulas also observed variation in the relationship between region and participation when age was held constant. Ibid., p. 64. The pattern was somewhat different in Ostry's analysis. Ostry, op. cit., p. 55-56.

[12]The differing relationship of child status to participation when age is held constant is noted by Skoulas and Ostry. Skoulas, op. cit., p. 66; Ostry, op. cit.

CHAPTER VI

SUMMARY AND CONCLUSIONS

ALL WOMEN

It comes as no surprise that the participation rates of all women in Canada increased over the decade between 1961 and 1971. Women of all ages participated in the labour force more frequently in 1971 than in 1961. The greatest increases in participation rates occurred in the age range of 35 to 54 years. Despite this increase between 35-54 years of age, the two-phase pattern of labour force participation was less evident in 1971 than in 1961. In comparison with the United States where the two-phase pattern was equally apparent in 1960 and 1970, younger women in Canada had higher participation rates while women 35 years of age or older had lower participation rates than their American age mates.

As in the case of age the participation rates of Canadian women increased over the decade whatever their residence. As expected rural non-farm women had the lowest labour force participation rates in 1971. However, though the proportion of rural farm women declined between 1961 and 1971, the participation rates of this group increased more than the rates of any other residence group. With the exception of rural farm women whose participation rates fall between those of women living in urban centers of 100,000-499,999 people and those living in centers of 30,000-99,999 people, female labour force participation is directly related to size of urban center. This

observation concerning rural farm women in Canada is not parallelled in the United States where rural farm women have the lowest labour force participation rates of all residence groups.

It was expected that foreign born women would exhibit higher labour force participation rates than native born women. The higher participation rates of foreign born women were particularly evident between the ages of 25 and 54. At no age did the difference exceed 10 percentage points. Because comparable data were not available for 1961 or the United States it was not possible to assess this finding over time or cross-culturally.

Over the 1961-1971 decade female labour force participation rates increased in all regions of Canada. However, the greatest increases over the decade occurred among women in those regions that had the highest rates in 1961 (Ontario, the Prairies and British Columbia). The gap between these regions, particularly for 25-54 year olds, and in Quebec and the Maritimes widened. Also, the lowest female labour force participation rates for 35-54 year olds appeared in Quebec in 1971. The Atlantic region had exhibited the lowest rates for all ages in 1961. Low participation in the Atlantic region may be partly accounted for by the high percentage of the population that is still rural (44%) though in view of the high participation of all rural farm women in 1971 this may not be an important factor. Certainly, this can have no explanatory value in Quebec where only 19% of the population is rural.

Labour force participation rates increased for women in all educational categories between 1961 and 1971 with the larges increases occurring between 25 and 44 years of age. The smallest

increase over the decade occurred among women with elementary or less education. Participation in the labour force in 1971 rises as education increases as was expected. The second peak of the two-phase pattern of participation is more evident for female age specific labour force participation rates when the data are disaggregated by education rather than by residence, birthplace or region though the first peak is less evident. However, this is less true in 1971 than in 1961. Except in the case of women with some university, American participation rates are higher than Canadian rates. Also, the two-phase pattern of life cycle participation is clearer in the United States than in Canada. In an attempt to assess whether the age and educational distribution had some impact on the appearance (or lack of it) of the two-phase pattern in Canada, the Canadian data were standardized on the American age and educational distribution and Canadian participation rates. This had the effect of increasing the rates but it did not make the two-phase pattern of life cycle participation any clearer.

An increase in labour force participation rates of married, and widowed and divorced women, occurred between 1961 and 1971. The rates of married women increased substantially at all ages and total rate increased from 22.0 in 1961 to 36.9 in 1971. The rates for widowed and divorced women also increased for all ages but the youngest although the increase was comparatively smaller (from 23.5 to 26.5). Single women participated in the labour force less often in 1971 than in 1961 except for the youngest age group though the decrease was small (1.5 points). The differences between the three marital groups narrowed over the decade. Nonetheless, single

women had the highest participation rates in 1971 followed by widowed and divorced women then by married women. Participation profiles of females by marital status demonstrate that the two-phase pattern of labour force participation is characteristic of married women only.

Comparisons between single, married, and widowed and divorced women show that married women accounted for all of the increase in the female labour force between 1961 and 1971. This, despite the fact that married women made up a smaller proportion of the total adult female population. Single women remain disproportionately represented in the female labour force, that is, they constitute a larger proportion of the labour force than they do of the adult female population. In the United States married women increased their share of the labour force slightly between 1960 and 1970. Perhaps more interesting is the fact that in the United States the proportion of each marital status in the adult female population and in the female labour force is almost the same. When the labour force participation profiles of Canada and the United States are compared, clear differences are apparent for widowed and divorced women--the American rates are consistently higher--and for married women--the two-phase pattern is clearer in the United States and the rates are higher for those over 35.

MARRIED WOMEN

Because of an interest in the two-phase pattern of life cycle participation and because of the expected effects of child status on participation, special attention was given the participation of

married women. Size of urban center was positively related to the labour force participation of married women although the range of difference was narrower than in the case of all women. Again rural farm women, in this case married ones, increased their participation more than other women. Married rural farm women do not exhibit the two-phase pattern and after the age of 25 have higher labour force participation rates than urban or rural non-farm women.

Regional differences among married women parallel those observed for all adult females. Quebec has the lowest rates in Canada after age 35 in spite of its low fertility which is largely the product of the large proportion of single women. The Atlantic region has the highest general fertility rates in Canada thus, its low female labour force participation rates are not surprising. For both the Maritimes and Quebec low educational levels would appear to be related to their low rates of female labour force participation and married female participation. On the basis of the evidence with regard to fertility and education one might have expected the British Columbia rates to be higher than they, in fact, are.

The findings with regard to the participation of married females of different educational levels is consistent with that regarding all females. Participation increases directly with educational level. Differences between Quebec and other regions of Canada in terms of education are not sufficient to explain the low participation of Quebec females. When the educational participation profiles of the Prairie region are compared with those of Quebec, the participation of married women on the Prairies is higher than that of Quebec women regardless of educational level.

Labour force participation by married women is shown to be related to the presence of children, their age, and their number. Young children, preschool children, act as a deterrent to the labour force participation of married females. For women under 35 when their children can be expected to be young, the presence of children acts as a greater deterrent to participation than is the case for those over 34 when their children are likely to be older. When the data are disaggregated by either the presence of children and/or the age of children the two-phase pattern of life cycle participation disappears. This pattern would appear to be the product of higher participation of childless women under 35 and rising participation of mothers over 34. The number of children is shown also to affect participation with lowest participation among women who have the most children.

The effects of preschool children on the labour force participation of married females has a bearing on both Canada-United States differentials in participation and regional differentials in participation. In Canada more women over 25 are married with husband present and more of them from age 30-44 have children under six than is the case in the United States. Earlier marriage, earlier childbearing and more divorce in the United States means that more women are available to re-enter the labour force earlier. Added to this, is the fact that even married women, husband present, with preschool children have higher participation rates in the United States than in Canada. These factors would account, at least partially, for the differences between Canada and the United States in terms of the two-phase pattern of life cycle participation.

The number of women, husband present with children under six

varies by region of Canada. In each five year age group more women in the Atlantic region have preschool children than is the case in other regions. The proportion of married women, husband present with preschool children is next highest in Quebec followed by the Prairies, Ontario and British Columbia. These regional differences along with regional differences in education would appear to account for the low participation rates of married women in Quebec and the Maritimes. The question of why single women, who constitute 30% of the adult female population, in Quebec also have low participation rates relative to other regions remains unanswered. Likewise it is curious that married women in British Columbia are not the highest in terms of labour force participation when they are the best educated, and when fewer of them have children under six. It should be noted that while there are fewer single women in British Columbia than in other regions, there are more widowed and divorced women. Whatever their source these regional differences, no doubt, are linked to the failure of the two-phase pattern of life cycle participation to emerge in Canada.

Only scanty evidence about the effect of husband's income on wife's labour force participation was available for analysis. What evidence there is indicates that participation of women is lower the higher their husband's income. It was expected that women would be more likely to work if their husbands were not in the labour force. Economic necessity would encourage participation of such women. The analysis showed quite the contrary--women were more likely to be in the labour force if their husbands were also in the labour force, partly because they were likely to have smaller families and perhaps, because they may have been better educated.

As noted in Chapter IV the findings with regard to the relationship of age, residence, birthplace, region, marital status, child status, husband's income, and husband's labour force status to female labour force participation are consistent with the results of earlier studies in Canada and other countries. The growth in female labour force participation in Canada between 1961 and 1971 was expected. This study has been able to give at least a limited and tentative account of the failure of the two-phase pattern of life cycle participation to materialize in Canada.

REGRESSION ANALYSIS

The results of a more sophisticated analysis of the nature of the relationship of age, region, education and child status to the labour force participation of married women, husband present, supports the findings summarized above. These four variables accounted for only 10% of the variance in the dependent variable. Obviously, any better explanation would require the inclusion of more independent variables. In this analysis, the most serious omission was information on the income of husband. However, even with 12 independent variables, Skoulas accounted for only 20% of the variance in the labour force participation of married women.[1] The analysis undertaken here shows the child status variable to be the most important in terms of its impact on the dependent variable followed in order by age, education and region.

In an attempt to clarify the problems of aggregation in categorical data, parallel calculations were done using aggregate and disaggregate data. This analysis shows that while the use of aggregate data artificially accounts for a great deal of variance

(the R^2 is very high), it demonstrates the same patterns of relationship between the independent and dependent variables as does disaggregate data.

When restrictions on one of the independent variables are introduced into the analysis, some differences in the nature of the relationship between the independent variables and the dependent variables and in the relative importance of the independent variables appear. Restriction by region reveals that while child status is the most important variable in all regions, as it is in Canada as a whole; education rather than age is next in importance for the Maritimes and age and education are about equally important in Quebec. This would reflect the importance of the large proportion of poorly educated women in these regions.

The nature of the relationship between region and participation varies when age is held constant. Estimated participation rates are lowest in British Columbia and highest in Ontario for the youngest age groups 15-24. Ontario has the highest rates for the next two age groups and Quebec the lowest, but the Prairies have the highest rates in the two oldest groups and Quebec remains low. Although education is positively related to participation in all age groups it becomes less influential with increasing age. Because child status is itself related to age, the effect of child status on participation can be seen to differ with age--the importance of the child status variable declines with increasing age. For the two oldest groups education rather than child status is the most important variable.

Restriction by child status changes the nature of the relationship between age and participation. Estimated participation

rates for women with children under six are highest for 35-44 year olds and lower for both younger and older women. Women with no children at home have the highest rate in 25-34 year age category while only women with children but none under six demonstrate the negative relationship between age and participation seen in the unrestricted case. This supports the idea that the two-phase pattern of participation is the product of differences in child status. The relative importance of the independent variables for participation varies from one child status category to another. Age is most important for women without children, region is most important for women with children but none under six. Education is most important for women with preschool children.

When restriction by education is introduced into the analysis variation in the relationship between region and education becomes apparent once more. The variability in participation rates for different regions is most evident among the least educated and becomes less important for the most educated. This does not, however, change the relative importance of the variables considered. Child status is most important, then age, then region in each educational category.

It should be noted that the amount of variance accounted for was generally small. The independent variables accounted for the most variance in the case of 15-24 year olds when age was held constant (R^2 = .2264) and in the case of women with no children at home when child status was held constant (R^2 = .1968).

In assessing the overall findings of this research some general conclusions can be made:

1. Female labour force participation increased more between 1961 and 1971 than in any preceding decade.

2. Female labour force participation increased most among those 35-54 years of age; among rural farm women (surprisingly); among those in Ontario, the Prairies and British Columbia; among the more educated; and among married women.

3. Except for the residence variable all relationships between the labour force participation and the independent variables, examined in Chapter IV, are in the direction one would expect on the basis of previous research.

4. A very limited multivariate analysis indicates that for the independent variables considered, child status is followed by age, education and region in terms of relative effect on the labour force participation of married females, husbands present.

5. Although region of residence does not exert a strong direct effect on the labour force participation of women, both the cross-sectional analysis and the regression analysis illuminate some of the indirect effects of region through education and child status.

6. The effects of marriage and childbearing patterns in Canada and its regions coupled with regional variations

in educational levels are such as to limit the appearance of the two-phase pattern of life-cycle participation. Only when changes occur in these factors and in related attitudinal factors, will the second peak in participation emerge more clearly.

DISCUSSION OF FINDINGS

Although this study focuses on the growth of the Canadian female labour force between 1961 and 1971, the correlates of female participation and the development of the two-phase pattern of female labour force participation, this discussion will attend to the last of the three foci. The two-phase pattern of life cycle participation has, of course, been observed in other studies but it has not previously been explored to the extent that it is here. It, therefore, deserves a more extended and speculative discussion.

The preceeding analysis and conclusions note that the two-phase pattern is less clear in Canada in 1971 than in 1961. It had been expected that just as the 1961 Canadian cross-sectional profile of participation was similar in shape to the U.S. pattern in 1951, so too would the 1971 Canadian profile be similar to the U.S. pattern of 1961. This would have meant a more pronounced two-phase pattern in Canada for 1971. In an attempt to sort out the reasons why the second phase of life cycle participation did not emerge more clearly in Canada in 1971 a number of factors were explored. The most productive avenue of exploration proved to be related to patterns of marriage and child rearing. Specifically, larger proportions of Canadian women

marry later, have children later, have young children at older ages and remain married than their American counterparts. While these differences indicate what factors underlie Canadian-American differentials in the two-phase pattern of participation, the question of why this should occur is simply shifted to another level. Instead of asking why the two-phase pattern does not emerge more clearly in Canada in 1971, one must now ask why Canadian and American women exhibit different marriage and reproductive patterns.

A clarification of this question comes from the analysis of regional differences in female, particularly married female, labour force participation within Canada. Two regions, Quebec and the Atlantic regions, not only show lower levels of female age specific participation; but also show little evidence of the two phase pattern of participation. Again a number of factors are related to the observed regional differences. Female educational attainment is lower in both Quebec and the Atlantic regions than in other regions. The importance of the educational variable appears to be greater in the Atlantic where well educated women participate at levels similar to those in other regions of Canada; however, well educated women constitute a smaller proportion of the population than in Ontario, the Prairies, or B.C. In the case of Quebec even university educated women, enter employment less frequently than is the case elsewhere.

In both regions, but moreso in the Atlantic, the average number of children per family is greater than in the other three region. This would further explain the differentials observed for females as a whole as well as for married females. In the case of Quebec this

constraint on the participation of married women should be offset by the fact that there are more single females in Quebec than in any other region but even single women in Quebec have lower participation rates than single women elsewhere.

Differences between Canadian and American women in marriage and childbearing patterns are in large measure, though not completely, the product of parallel differences between the Quebec and the Atlantic regions and the other regions of Canada. All Canadian women marry later than American women but Quebec women marry later than other Canadian women. All Canadian women whatever the region have more young children at older ages but this difference is most notable for women in Quebec and the Atlantic. After age 25 a larger proportion of Canadian women are married and living with their husbands than is true in the United States but again this is most true of women in the Quebec and Atlantic regions.

Again in answering one set of questions another set is raised. Why do Canadian women marry later than American women and hence have young children later? Why do more Canadian marriages remain intact? Regional differences provide part of the answer but not all.

Why are women in Quebec and the Atlantic region educationally disadvantaged? A detailed accounting of this disparity is not possible here but it is important to note that both men and women in these two regions are at a disadvantage relative to residents in other parts of the country. In the case of Quebec, educational disparity is tied to the socio-historical pattern of the development of education where language, religion, and economic relationships, among other things led to the growth of educational institutions and

patterns of educational attainment that were unique. Recent reforms in education in that province will in time decrease, if not obliterate, these educational disparities but for the present, at least, the impact of the pre-1960's educational experience is still felt. In the case of the Atlantic, educational disparity is primarily a matter of economic disparity and not of differences in the nature of educational institutions. Unlike Quebec, in the Atlantic the education available is not different, it is just less available.

Why are marriage and childbearing patterns different in these two regions? This is related to education in the sense that higher fertility is characterisitc of less educated women. In the Atlantic the relatively large rural segment of the population would contribute to high fertility in the region and more stable marriages. In Quebec where urbanization is high, where, fertility is rapidly decreasing in any case, where even single and well educated women participate in the labour force less than do women elsewhere, on must seek other explanations. The differences between Quebec and other regions of Canada are particularly important because Quebec women constitute 28% of all Canadian women.

Although no evidence of socio-cultural differences can be adduced from the data used here, there are a number of studies that indicate considerable differences in female role definitions between French speaking Canadians and English speaking Canadians. Work by Garigue and Moreaux suggests that the mother's role as a childrearer and the emotional center of family life is central in French Canadian families and is buttressed by the strong kinship ties that are maintained largely by women, even in the largest urban centers.[2]

Stronger support for differences in female role definitions comes from work by Hobart and Boyd.[3] Using a sample of English and French University and trade school students Hobart found that French Canadian females were consistently more egalitarian than English speaking females in their views regarding education, female authority, housework, and gainful employment. Such was not the case for French Canadian males who were more traditional than English speaking males. He found also that "French Canadian students have more traditional attitudes towards parental roles and child rearing methods than English speaking students and French men are more conservative than the women."[4] These findings are supported by evidence from Gallup Polls between 1964 and 1973 analyzed by Boyd. She found that French Canadians were more tolerant of women in traditionally male work roles, of women competing with men for jobs, and of equality of opportunity in obtaining jobs. "However in certain areas, French Canadians hold more traditional attitudes than do English Canadians. Both groups hold egalitarian attitudes toward women without young children working. But once the mother and husband roles are involved, a larger proportion of French-Canadians concur with the traditional stance that women should remain at home and husbands should be dominant."[5]

This very brief discussion does not provide a definitive explanation of differences in female labour force participation between Quebec and other regions of the country. However, it does suggest that differences in the rates of female employment are the result of an interplay between the structural factors examined in this study and socio-cultural differences in attitudes and behavior observed by sociologists and anthropologists. The discussion of socio-cultural

factors does not deal explicitly with differences between Canadian and American women but it is suggestive here too. Socio-cultural differences between Canadians generally and Americans in attitudes and behavior may account for that part of the participation differential not explained by regional differences within Canada. Any further elucidation of this question rests on future research endeavors, a matter to which the next section addresses itself.

DIRECTIONS FOR FURTHER RESEARCH

In order, to view the results of this study in the proper context one must look not only at what research has been done but also at what remains to be done. The following discussion looks briefly at a number of areas for research that relate to female labour force participation.

Time series analysis would be a considerable step forward in understanding increases in female labour force participation over time in Canada. No studies of this nature have been undertaken in Canada though there have been such studies in the United States as is indicated in the literature review. While the present study examines the influence of a number of variables to labour force participation at a point in time, time series studies would elucidate the importance of these and other variables for the growth of female participation over time. Data availability puts some limits on the time span that might be considered but information from 1951 on could probably be used.

Some work on occupational segregation in the female labour force might clarify the position of women as workers. The Armstrongs have done some work in this area but were seriously hampered by the

1971 occupational classifications and their lack of comparability to previous censuses.[6] What they do find is that, women are still highly segregated in low skill and clerical occupations that by and large pay poorly from which the authors conclude that, most women who work, do so out of necessity. In contrast, Krishnan and Sangadas as working with 1951 and 1961 data see a considerable amount of upward occupational mobility for women.[7] This mobility is blue collar to white collar mobility, so the contradiction with the Armstrong's findings may be more apparent than real. Cullen and Nakamura have been working on the comparability problem and will soon have comparable classifications for 1951, 1961, and 1971 that should allow for clearer and more detailed conclusions than the Armstrongs'.[8] Knowledge of occupational segregation allows for the assessment of the growth in employment opportunities for women which may provide some insight into changes in female employment in Canada in the last two decades. Occupational segregation may well be a factor in regional differences in female participation. That is, there may be more opportunities and better opportunities for employment for women in some regions than in other regions.

The review of the literature suggests a number of socio-cultural factors that relate to the propensity of women to work. These socio-cultural factors no doubt are involved in the regional differences observed in this study. This is probably more important in the case of Quebec but may be influential elsewhere as well. Aside from the work of Hobart and Boyd, there is little information about how males and females in Canada define female roles or their attitudes towards female employment especially the employment of

women with young children.[9] Both of these studies find French Canadians (especially males) more conservative in their views on the employment of women with children, parental roles, and childrearing. Other work by Boyd examines differences in these attitudes for different age, sex and educational groups but much more work remains to be done looking at these and other factors like region, ethnicity, and marital status.[10] Studies of why Canadian women do or do not work--their motivations--might allow us to assess how important economic necessity, or availability of day care or self fulfillment are in relation to female employment. For all the interest in women's studies in Canada we still know very little about how socialization and other experiential factors may be related to female labour force participation. These studies might not only elucidate differences in participation within Canada but also Canadian American differences. Perhaps as some have suggested Canadians are more traditional in their orientations than Americans or Europeans.

Studies such as those outlined focus on how a variety of factors affect employment but one might also examine how female employment affects such things as age at marriage, fertility, marriage forms, family size, family functioning, socialization of children, and task distribution in the home. Some attention has been given to age at marriage, fertility and family size by Henripin, Légaré, and Pool and Bracher but the causal links with employment are not yet clear.[11] Meissner et al have addressed the task distribution question in their Vancouver study but most of the other areas remain unexplored in the Canadian context.[12]

As household and family file data become available, questions such as the availability of household conveniences, presence of extra adults in the home, income or education of the husband, unemployment of husband as they relate to female employment can be examined, thus adding to earlier findings in this area.

While the research possibilities outlined above do not constitute an exhaustive list, they do indicate a range of research needs. The important thing to note in this context is that work needs to be done in a wide variety of areas before a better understanding of the determinants of female labour force participation and of the impact of female participation on other areas of social life is possible.

SOME POSSIBLE DEVELOPMENTS IN FEMALE LABOUR FORCE PARTICIPATION

To conclude on a more speculative note, one might ask what direction female labour force participation might take in the future? Using 1991 as a reference date, the following are some considerations involved in possible future employment levels of women.

Since fertility began to decline in the late 1950's, the female cohorts entering the labour force from approximately 1980 on will be smaller than the cohorts now entering the labour force. Even if one assumes that no expansion of employment opportunities occurs after 1980, there will be fewer candidates for employment, so relatively speaking the opportunities will be greater.[13] While this should be reflected in rising participation rates of young females, it must be remembered that these cohorts will have a large selection of possible marital partners and may as a result marry earlier and be

less inclined to work throughout their life cycle.

Changes in marriage patterns or more precisely divorce patterns may also contribute to increasing female labour force participation. Whether divorce rates continue to increase or to stabilize at present levels, the proportion of women in this category will continue to increase. Since divorced as well as separated women participate more than married women, husband present, some increase in participation will come from this source.

Stabilization of birthrates or perhaps decreases in birthrates and hence, stabilization or decrease in family size may also serve to increase female labour force participation particularly in the second phase of the life cycle. Baby booms, however, are not predictable and it is entirely possible that the 1960 and later female cohorts with their advantages in the marriage market may be encouraged to higher levels of fertility than their predecessors.

Continuing improvements in female educational attainment would also encourage female employment. Again, even stabilization at current levels of secondary and post-secondary enrolments would mean increases in the pool of relatively more educated women between now and 1991.

Improvements in educational levels of women would be particuarly influential in those regions--the Atlantic and Quebec regions--that are currently educationally "disadvantaged." If such an improvement were coupled with attitudinal changes about the role of women, and the desirability of work for women with young children in Quebec, participation in that region would be further enhanced. Improvements in the economic circumstances and declines in family size in the Atlantic

region would contribute to increases in female labour force participation in that region.

Increasingly, favourable attitudes towards female employment and changes in female role definitions would encourage female participation in all parts of the country, not just Quebec. If attitudinal changes were coupled with decreasing occupational segregation of women and increasing income parity with men one could also expect increases in the proportion of women who work. It is possible, however, that concern about the effects of female employment on family stability and on the socialization of children may slow down the pace of liberalizing attitudes towards the employment of women with children.

While current Provincial and Federal policies favoring multiculturalism are welcomed by many, it must be recognized that many ethnic subcultures contain very traditional attitudes towards the roles of women and mothers. The maintenance of these ethnic subcultures in Canada may well reinforce traditional attitudes countering current trends towards more liberal views of women and their place in society.

Should recommendations of various task forces on the status of women ever come to fruition, adequate day care may become more available and more flexible work patterns for women may be possible. Both of these could encourage female labour force participation particularly among women with young children. This, along with other changes discussed above may result in lower rates of withdrawal from the labour force for women with young children. Such a possibility would mean that the two-phase pattern of participation would become less evident over time. Current cutbacks in government funds for

welfare spending at Federal, Provincial and local levels, should they continue, would limit the expansion of day care and as a consequence limit participation of mothers with preschool children. The same reasoning would also apply to after school care.

Economic factors such as increasing inflation might also serve to encourage female participation by increasing the necessity for married women to work. An extended and severe economic depression might also increase pressures for female employment by increasing economic need while at the same time creating a climate favorable to the exclusion of women from the labour force on the grounds that they take jobs away from men.

These are but some of the considerations that must be taken into account in prognosticating about the future of female employment in Canada. They indicate the complexities involved in making projections though on balance it would appear reasonable to look for continuing growth in the female labour force and in female labour force participation rates.

FOOTNOTES

[1]N. Skoulas, Determinants of the Participation Rate of Married Women in the Canadian Labour Force: An Econometric Analysis (Statistics Canada, Ottawa: Information Canada, 1974), p. 51.

[2]P. Garigue, "French Canadian Kinship and Urban Life," in L.E. Larson (ed.), The Canadian Family in Comparative Perspective (Scarborough: Prentice Hall of Canada, Ltd., 1976), pp. 289-300; and C. Moreaux, "The French-Canadian Family," in M. Stephenson (ed.), Women in Canada (Toronto: New Press, 1973), pp. 157-182.

[3]C.W. Hobart, "Attitudes Toward Parenthood Among Canadian Young People," in C.W. Hobart and L.E. Larson (eds.), Selected Readings on the Family in Canadian Context (Edmonton: University of Alberta, Department of Sociology, 1973), pp. 217-244; C.W. Hobart, "Orientations to Marriage Among Young Canadians," in L.E. Larson (ed.), The Canadian Family in Comparative Perspective (Scarborough: Prentice-Hall of Canada, Ltd., 1976), pp. 172-185; and M. Boyd, "English-Canadian and French-Canadian Attitudes Toward Women: Results of the Canadian Gallup Polls," Journal of Comparative Family Studies, VI (No. 2, 1975), pp. 153-169.

[4]Hobart (1973), op. cit., p. 230.

[5]Boyd, op. cit., pp. 167-168.

[6]H. Armstrong and P. Armstrong, "Women in the Canadian Labour Force, 1941-1971," Canadian Review of Sociology and Anthropology, XII (No. 4, 1975), pp. 370-384.

[7]P. Krishnan and A. Songadasa, "Stochastic Indicators of Occupational Mobility, Canada, 1951-1961," Proceedings of the American Statistical Association: Social Statistics Section, (1974), pp. 363-366.

[8]Personal communication from Professor D. Cullen of the Department of Business Administration and Commerce, University of Alberta.

[9]Hobart (1973), op. cit., pp. 217-244; Hobart (1976), op. cit., pp. 172-185; and Boyd, op. cit., pp. 153-169.

[10]M. Boyd, "Equality Between the Sexes: The Results of Canadian Gallup Polls, 1953-1975," presented at the Annual Meeting of the Canadian Sociology and Anthropology Association (August, 1974).

[11]J. Henripin, Trends and Factors of Fertility in Canada, (Statistics Canada, Ottawa: Information Canada, 1972); J. Henripin and J. Légaré, "Recent Trends in Canadian Fertility," Canadian Review of Sociology and Anthropology, VIII (No. 2, 1971), pp. 106-118; J. Légaré, Demographic Highlights on Fertility Decline in Canadian Marriage Cohorts," Canadian Review of Sociology and Anthropology, XI (No. 4, 1974), pp. 287-307; and D.I. Pool and M.D. Bracher, "Aspects of Family Formation in Canada," Canadian Review of Sociology and Anthropology, XI (No. 4, 1974), pp. 308-323.

[12]M. Meissner, et al. "No Exit for Wives: Sexual Division of Labour," Canadian Review of Sociology and Anthropology, XII (No. 4, 1975), pp. 424-439.

[13]For a discussion of the fit between age and opportunity pyramids see K. Krotki, "Consequences of the Demographic Wave in Western Canada," in B.Y. Card (ed.), Perspectives on Regions and Regionalism, Proceedings of the Western Association of Sociology and Anthropology, (Edmonton: University of Alberta Printing Services, 1968), p. 105; and K. Krotki, "A Formulation for the Demographic, Sociological and Economic Dimensions of the So-Called Generation Gap," The Pakistan Development Review, XIV (No. 4, 1975), pp. 452-454.

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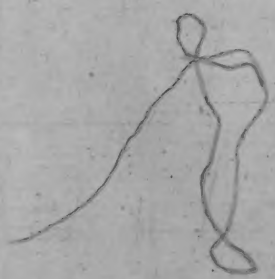

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